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# SOUTH CAROLINA STATE REGISTER

PUBLISHED BY  
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of the  
GENERAL ASSEMBLY

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This issue contains notices, proposed regulations, emergency regulations, final form regulations, and other documents filed in the Office of the Legislative Council, pursuant to Article 1, Chapter 23, Title 1, Code of Laws of South Carolina, 1976.

# ***SOUTH CAROLINA STATE REGISTER***

An official state publication, the *South Carolina State Register* is a temporary update to South Carolina's official compilation of agency regulations--the *South Carolina Code of Regulations*. Changes in regulations, whether by adoption, amendment, repeal or emergency action must be published in the *State Register* pursuant to the provisions of the Administrative Procedures Act. The *State Register* also publishes the Governor's Executive Orders, notices or public hearings and meetings, and other documents issued by state agencies considered to be in the public interest. All documents published in the *State Register* are drafted by state agencies and are published as submitted. Publication of any material in the *State Register* is the official notice of such information.

## **STYLE AND FORMAT**

Documents are arranged within each issue of the *State Register* according to the type of document filed:

**Notices** are documents considered by the agency to have general public interest.

**Notices of Drafting Regulations** give interested persons the opportunity to comment during the initial drafting period before regulations are submitted as proposed.

**Proposed Regulations** are those regulations pending permanent adoption by an agency.

**Pending Regulations Submitted to the General Assembly** are regulations adopted by the agency pending approval by the General Assembly.

**Final Regulations** have been permanently adopted by the agency and approved by the General Assembly.

**Emergency Regulations** have been adopted on an emergency basis by the agency.

**Executive Orders** are actions issued and taken by the Governor.

## **2009 PUBLICATION SCHEDULE**

Documents will be accepted for filing on any normal business day from 8:30 A.M. until 5:00 P.M. All documents must be submitted in the format prescribed in the *Standards Manual for Drafting and Filing Regulations*.

To be included for publication in the next issue of the *State Register*, documents will be accepted no later than 5:00 P.M. on any closing date. The modification or withdrawal of documents filed for publication must be made **by 5:00 P.M.** on the closing date for that issue.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Submission Deadline	1/9	2/13	3/13	4/10	5/8	6/12	7/10	8/14	9/11	10/9	11/13	12/11
Publishing Date	1/23	2/27	3/27	4/24	5/22	6/26	7/24	8/28	9/25	10/23	11/27	12/25

## REPRODUCING OFFICIAL DOCUMENTS

Documents appearing in the *State Register* are prepared and printed at public expense. Media services are encouraged to give wide publicity to documents printed in the *State Register*.

## PUBLIC INSPECTION OF DOCUMENTS

Documents filed with the Office of the State Register are available for public inspection during normal office hours, 8:30 A.M. to 5:00 P.M., Monday through Friday. The Office of the State Register is in the Legislative Council, Fourth Floor, Rembert C. Dennis Building, 1000 Assembly Street, in Columbia. Telephone inquiries concerning material in the *State Register* or the *South Carolina Code of Regulations* may be made by calling (803) 212-4500.

## ADOPTION, AMENDMENT AND REPEAL OF REGULATIONS

To adopt, amend or repeal a regulation, an agency must publish in the *State Register* a Notice of Drafting; a Notice of the Proposed Regulation that contains an estimate of the proposed action's economic impact; and, a notice that gives the public an opportunity to comment on the proposal. If requested by twenty-five persons, a public hearing must be held at least thirty days after the date of publication of the notice in the *State Register*.

After the date of hearing, the regulation must be submitted to the General Assembly for approval. The General Assembly has one hundred twenty days to consider the regulation. If no legislation is introduced to disapprove or enacted to approve before the expiration of the one-hundred-twenty-day review period, the regulation is approved on the one hundred twentieth day and is effective upon publication in the *State Register*.

## EMERGENCY REGULATIONS

An emergency regulation may be promulgated by an agency if the agency finds imminent peril to public health, safety or welfare. Emergency regulations are effective upon filing for a ninety-day period. If the original filing began and expired during the legislative interim, the regulation can be renewed once.

## REGULATIONS PROMULGATED TO COMPLY WITH FEDERAL LAW

Regulations promulgated to comply with federal law are exempt from General Assembly review. Following the notice of proposed regulation and hearing, regulations are submitted to the *State Register* and are effective upon publication.

## EFFECTIVE DATE OF REGULATIONS

**Final Regulations** take effect on the date of publication in the *State Register* unless otherwise noted within the text of the regulation.

**Emergency Regulations** take effect upon filing with the Legislative Council and remain effective for ninety days. If the original ninety-day period begins and expires during legislative interim, the regulation may be refiled for one additional ninety-day period.

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DOC. No.	RAT. No.	FINAL ISSUE	SUBJECT	EXP. DATE	AGENCY
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3202		SR33-2	Requirements for Licensure as a Physical Therapist	2/11/09	LLR - Board of Physical Therapy Examiners
3201		SR33-2	Mobile Dental Facilities and Portable Dental Operations	2/12/09	LLR - Board of Dentistry
3196		SR33-3	S.C. National Guard College Assistance Program	3/09/09	Commission on Higher Education
3207		SR33-3	Board of Veterinary Medical Examiners Chapter Revision	3/11/09	LLR - Bd of Veterinary Medical Examiners
3204		SR33-3	Licensing Standards for Continuing Care Retirement Communities	3/12/09	Department of Consumer Affairs
3199		SR33-4	South Carolina Trauma Care Systems	3/18/09	Department of Health and Envir Control
3206		SR33-4	Application, Renewal and Continuing Education	3/20/09	LLR - Board of Chiropractic Examiners
3209	R5	SR33-3	Operation of Public Pupil Transportation Services	4/07/09	State Board of Education
3214		SR33-5	Fire Prevention and Life Safety	4/22/09	LLR - Office of State Fire Marshal
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3216		SR33-5	Explosives	4/22/09	LLR - Office of State Fire Marshal
3217		SR33-5	Portable Fire Extinguishers and Fixed Fire Extinguishing Systems	4/22/09	LLR - Office of State Fire Marshal
3218		SR33-5	Liquefied Petroleum (LP) Gas	4/22/09	LLR - Office of State Fire Marshal
3219		SR33-5	Fireworks and Pyrotechnics	4/22/09	LLR - Office of State Fire Marshal
3220		SR33-5	Fire Prevention and Life Safety in Local Detention Facilities	4/22/09	LLR - Office of State Fire Marshal
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3197		SR33-6	Annual Reporting Requirements for Designated Eligible Telecommunications Carriers	5/13/09	Public Service Commission
3203		SR33-6	Telephone Utilities Offering Regulated Prepaid Local Exchange Services and Bonds	5/13/09	Public Service Commission
3210		SR33-6	Licensing of Onsite Wastewater System Master Contractor	5/13/09	Department of Health and Envir Control
4004		SR33-6	Federal Government Construction Contracts	5/13/09	Department of Revenue
3225		SR33-6	Hazardous Waste Management	5/13/09	Department of Health and Envir Control
4005		SR33-6	Deed Recording Fee	5/13/09	Department of Revenue
3223		SR33-6	Adjustment of Bills and Representation	5/13/09	Public Service Commission
3226		SR33-6	X-rays (Title B)	5/13/09	Department of Health and Envir Control
4036		SR33-6	Replacement of Life Insurance and Annuities	5/13/09	Department of Insurance
4035	R20	SR33-4	Preneed Life Insurance Minimum Standards for Determining Reserve Liabilities and Nonforfeiture Values	5/13/09	Department of Insurance
4028		SR33-6	Charter School Appeals	5/13/09	State Board of Education
4029		SR33-6	Assessment Program	5/13/09	State Board of Education
4027		SR33-6	Program for Assisting, Developing, and Evaluating Principal Performance (PADEPP)	5/13/09	State Board of Education
4026		SR33-6	Procedures and Standards for Review of Charter School Applications	5/15/09	State Board of Education
4019		SR33-6	Occupational Safety and Health Act	5/16/09	LLR-Occupational Safety and Health
4041		SR33-6	Pilot and Apprentice Age Limitations; Short Branch Qualifications; Pilot Functions and Responsibilities; and Penalties	5/16/09	LLR-Commissioners of Pilotage
4018		SR33-6	Board of Registration for Professional Engineers and Surveyors	5/16/09	LLR- Bd of Registration for Professional Engineers and Surveyors
3222		SR33-6	Interruption of Service, Computation of Time, and Service Between Parties of Record	5/18/09	Public Service Commission
4039		SR33-6	Designation of Asian Citrus psyllid as Plant Pest and Quarantine	5/20/09	Clemson University-State Crop Pest Comm.
4001		SR33-6	Plum Pox Virus Quarantine	5/20/09	Clemson University-State Crop Pest Comm.
4013		SR33-6	Standards for Licensing Nursing Homes	5/20/09	Department of Health and Envir Control
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4049	R73	SR33-6 Use and Dissemination of Test Results	1/25/10	State Board of Education
4053	R27	SR33-5 Enforcement of Pilot Statutes and Maritime Homeland Security	2/09/10	Commissioners of Pilotage
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4054		Registration of Immigration Assistance Services	3/06/10	LLR
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4068		Funeral Service Practice Act	4/11/10	Board of Funeral Service
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3202	Requirements for Licensure as a Physical Therapist	Medical, Military, Pub & Mun Affairs	Medical Affairs
3201	Mobile Dental Facilities and Portable Dental Operations	Medical, Military, Pub & Mun Affairs	Medical Affairs
3196	S.C. National Guard College Assistance Program	Education and Public Works	Education
3207	Board of Veterinary Medical Examiners Chapter Revision	Agriculture and Natural Resources	Labor, Commerce and Industry
3204	Licensing Standards for Continuing Care Retirement Communities	Medical, Military, Pub & Mun Affairs	Medical Affairs
3199	South Carolina Trauma Care Systems	Medical, Military, Pub & Mun Affairs	Medical Affairs
3206	Application, Renewal and Continuing Education	Medical, Military, Pub & Mun Affairs	Medical Affairs
3209	Operation of Public Pupil Transportation Services	Education and Public Works	Education
3214	Fire Prevention and Life Safety	Labor, Commerce and Industry	Labor, Commerce and Industry
3215	Fire Prevention and Life Safety for Special Occupancies	Labor, Commerce and Industry	Labor, Commerce and Industry
3216	Explosives	Labor, Commerce and Industry	Labor, Commerce and Industry
3217	Portable Fire Extinguishers and Fixed Fire Extinguishing Systems	Labor, Commerce and Industry	Labor, Commerce and Industry
3218	Liquefied Petroleum (LP) Gas	Labor, Commerce and Industry	Labor, Commerce and Industry
3219	Fireworks and Pyrotechnics	Labor, Commerce and Industry	Labor, Commerce and Industry
3220	Fire Prevention and Life Safety in Local Detention Facilities	Labor, Commerce and Industry	Labor, Commerce and Industry
3213	Annual Audited Financial Reporting Regulation	Labor, Commerce and Industry	Banking and Insurance
3208	Contact Information from Traffic Stops	Education and Public Works	Transportation
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4036	Replacement of Life Insurance and Annuities	Labor, Commerce and Industry	Banking and Insurance
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4026	Procedures and Standards for Review of Charter School Applications	Education and Public Works	Education
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3222	Interruption of Service, Computation of Time, and Service Between Parties of Record	Labor, Commerce and Industry	Judiciary
4039	Designation of Asian Citrus psyllid as Plant Pest and Quarantine	Agriculture and Natural Resources	Agriculture and Natural Resources
4001	Plum Pox Virus Quarantine	Agriculture and Natural Resources	Agriculture and Natural Resources
4013	Standards for Licensing Nursing Homes	Medical, Military, Pub & Mun Affairs	Medical Affairs
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4034	Determination of Rates of Tuition and Fees	Ways and Means	Education
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4020	PC&N (Stretcher Vans)	Labor, Commerce and Industry	Judiciary
4017	Milk and Milk Products	Agriculture and Natural Resources	Medical Affairs
3198	Solid Waste Management: Demonstration-of-Need	Agriculture and Natural Resources	Medical Affairs
3221	Statewide Criminal Gang Database	Judiciary	Judiciary
4042	Seasons, Bag Limits, Methods of Take and Special Use Restrictions on Wildlife Management Areas	Agriculture and Natural Resources	Fish, Game and Forestry
4043	Amend and Add Regulations to Chapter 67 to Reflect Changes in Title 42 Necessitated by the Approval of Act 111 on June 25, 2007	Labor, Commerce and Industry	Judiciary
4049	Use and Dissemination of Test Results	Education and Public Works	Education
4053	Enforcement of Pilot Statutes and Maritime Homeland Security	Judiciary	Transportation
4052	Light Brown Apple Moth Quarantine	Agriculture and Natural Resources	Agriculture and Natural Resources
4054	Registration of Immigration Assistance Services	Labor, Commerce and Industry	Labor, Commerce and Industry

#### 4 COMMITTEE LIST OF REGULATIONS SUBMITTED TO GENERAL ASSEMBLY

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4058	Insurance Holding Company Systems	Labor, Commerce and Industry	Banking and Insurance
4059	South Carolina Reinsurance Facility Recoupment	Labor, Commerce and Industry	Banking and Insurance
4060	Life Insurance Disclosure	Labor, Commerce and Industry	Banking and Insurance
4061	Valuation of Investments	Labor, Commerce and Industry	Banking and Insurance
4062	Phytophthora ramorum Quarantine	Agriculture and Natural Resources	Agriculture and Natural Resources
4068	Funeral Service Practice Act	Labor, Commerce and Industry	Judiciary
4066	Long Term Care Insurance		
4072	Central Fill Pharmacies		
4067	Law Enforcement Officer and E-911 Officer Training & Certification		
<b>Committee Requested Withdrawal</b>			
4016	Environmental Health Inspections and Fees	Agriculture and Natural Resources	Medical Affairs
4022	Riverbanks Parks Commission	Agriculture and Natural Resources	Fish, Game and Forestry
<b>Resolution Introduced to Disapprove</b>			
4014	Environmental Protection Fees	Agriculture and Natural Resources	Medical Affairs
4015	Environmental Protection Fees	Agriculture and Natural Resources	Medical Affairs
<b>Permanently Withdrawn</b>			
3166	SCDOT Chief Internal Auditor	Education and Public Works	Transportation
4003	Donors and Goods Given Away for Advertising Purposes	Ways and Means	Finance

**BUILDING CODES COUNCIL****NOTICE OF GENERAL PUBLIC INTEREST**

Notice is hereby given that, in accordance with Section 6-9-40 of the 1976 Code of Laws of South Carolina, as amended, the Building Codes Council hereby adopts the latest edition of the following nationally recognized code: 2008 Edition of the National Electric Code, with two amendments.

The original promulgating authority for this code is:  
National Fire Protection Association  
1 Batterymarch Park  
Quincy, Massachusetts 02269

The Building Codes Council specifically requested comments concerning sections of this edition, which may be unsuitable for enforcement in South Carolina and considered all submissions. Based upon the evidence presented to it, the Building Codes Council finds the following modifications will provide a reasonable degree of public health, safety and welfare, and will be suitable for enforcement in South Carolina.

**Modifications:**

The modified sections will now read:

**Article 90.2(B)(5)b. Not Covered** – Installations under the exclusive control of an electric utility where such installations

b. Are located in legally established easements, rights-of-way, or by other agreements either designated by or recognized by public service commissions, utility commissions, or other regulatory agencies having jurisdiction for such installations, or

**Article 210.12(B) Arc-Fault Circuit-Interrupter Protection** – Exception (c) A circuit serving no outlets within the bedroom except the smoke detector shall not be protected by an arc-fault protector.

**DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL****NOTICE****NOTICE OF CANCELLATION AND RESCHEDULING OF PUBLIC HEARING**

The Department of Health and Environmental Control issued a Notice of Proposed Regulation to revise Regulation 61-62.60, South Carolina Designated Facility Plan and New Source Performance Standards, Regulation 61-62.72, Acid Rain, and Regulation 61-62.63, National Emission Standards for Hazardous Air Pollutants (NESHAP) for Source Categories, in the State Register on March 27, 2009, identified as Document 4070. The Notice published in the State Register would amend Regulation 61-62.60 and Regulation 61-62.72 to remove all provisions of the State's Clean Air Mercury Rule and Regulation 61-62.63 to remove Subparts DDDDD, JJJJJ, and KKKKK. The aforementioned Notice scheduled a Staff Informational Forum that was conducted on April 27, 2009, a write-in comment period that closed April 27, 2009, and a Public Hearing scheduled before the DHEC Board of Health and Environmental Control on June 11, 2009. No public comments were received at the informational forum or during the write-in public comment period. Due to scheduling conflicts, the Public Hearing originally scheduled for June 11, 2009, in Document 4070, was canceled and will be rescheduled as follows:

## 6 NOTICES

The Public Hearing to be conducted by the Board for this proposed regulation has been rescheduled for August 13, 2009. The hearing will be held at the regularly scheduled Board meeting on August 13, 2009, in the Board Room of the Commissioner's Suite, Third Floor, Aycock Building of the Department of Health and Environmental Control, 2600 Bull St., Columbia, SC. The Board meeting commences at 10:00 a.m. at which time the Board will consider items on its agenda in the order presented. The order of presentation for public hearing on August 13, 2009, will be noticed in the Board's agenda to be published by the Department 24 hours in advance of the meeting. Interested persons are invited to make oral or written comments on the proposed regulation at the public hearing. Persons desiring to make oral comments at the hearing are asked to limit their statements to five minutes and, as a courtesy, are asked to provide written copies of their presentations for the record. Any comments made at the public hearing will be given consideration in formulating the final version of the regulations.

### DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL

#### NOTICE

In accordance with Section 44-7-200(C), Code of Laws of South Carolina, the public is hereby notified that a Certificate of Need application has been accepted for filing and publication June 26, 2009, for the following project(s). After the application is deemed complete, affected persons will be notified that the review cycle has begun. For further information, please contact Mrs. Sarah "Sallie" C. Harrell, Division of Planning and Certification of Need, 2600 Bull St., Columbia, SC 29201 at (803) 545-4200.

Affecting Greenwood County

Purchase and installation of a BrainSUITE System to include a twenty-four (24) slice Computed Tomography (CT) scanner  
Self Regional Healthcare  
Greenwood, South Carolina  
Total Project Cost: \$2,500,000

In accordance with S.C. DHEC Regulation 61-15, the public and affected persons are hereby notified that the review cycle has begun for the following project(s) and a proposed decision will be made within 60 days beginning June 26, 2009. "Affected persons" have 30 days from the above date to submit comments or requests for a public hearing to Mr. Les W. Shelton, Division of Planning and Certification of Need, 2600 Bull Street, Columbia, S.C. 29201. For further information call (803) 545-4200.

Affecting Beaufort County

Addition of one (1) operating room (OR) for a total of three (3) ORs and two (2) endoscopy rooms restricted to gastroenterology procedures only  
Outpatient Surgery Center of Hilton Head  
Hilton Head, South Carolina  
Project Cost: \$400,000

Affecting Charleston County

Construction of an outpatient cancer center to co-locate outpatient cancer services, consisting of radiation therapy, infusion therapy and diagnostic imaging, in a freestanding medical office building; installation of a third (3<sup>rd</sup>) conventional linear accelerator; and relocation of the existing PET/CT scanner from Roper Hospital, Inc. The facility will be located on Bon Secours St. Francis Xavier Hospital's Campus at 2085 Henry Tecklenburg Drive, Suite 100, Charleston, SC

Roper St. Francis West Ashley Cancer Center  
Charleston, South Carolina  
Project Cost: \$19,012,501

Affecting Georgetown County

Renovation for the addition of fifteen (15) psychiatric beds to be located at Georgetown Memorial Hospital  
Georgetown Memorial Hospital  
Georgetown, South Carolina  
Project Cost: \$2,124,865

Affecting Greenville County

Addition of seventeen (17) psychiatric beds by licensing five (5) existing unlicensed beds and construction for twelve (12) new beds for a total of thirty seven (37) psychiatric beds and sixty-eight (68) residential treatment facility beds for children and adolescents  
Chestnut Hill Mental Health Center, Inc. d/b/a Springbrook Behavioral Health System  
Travelers Rest, South Carolina  
Project Cost: \$750,030

Affecting Lexington County

Upfit of shelled space on the eighth (8<sup>th</sup>) floor of the North Tower for the addition of thirty (30) inpatient beds for a total licensed bed capacity of four hundred fourteen (414) acute care beds; renovation to the Oncology floor in the South Tower  
Lexington Medical Center  
West Columbia, South Carolina  
Project Cost: \$12,182,659

**DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL**

**NOTICE**

Bureau of Land and Waste Management  
Palmetto Antique Flooring & Salvage Site, Richland County

**NOTICE OF INTENT TO SETTLE  
AND OPPORTUNITY FOR PUBLIC COMMENT**

PLEASE TAKE NOTICE that the South Carolina Department of Health and Environmental Control ("SCDHEC") intends to enter into a Cost Recovery Settlement Agreement with Carl S. Rush. Prior to final execution by SCDHEC, the Cost Recovery Settlement Agreement is subject to a 30-day public comment period, consistent with the Comprehensive Environmental Response, Compensation, and Liability Act ("CERCLA") Sections 113 and 122, 42 U.S.C. Sections 9613 and 9622, and the South Carolina Hazardous Waste Management Act ("HWMA") S.C. Code Ann. Section 44-56-200 (2003).

The Cost Recovery Settlement Agreement relates to the release, and threatened release, of hazardous substances, pollutants, or contaminants at the Palmetto Antique Flooring & Salvage Site (the "Site"), located in Richland County, South Carolina, at 1125 Joe Louis Drive, Columbia, SC. The Cost Recovery Settlement Agreement provides for the recovery of a portion of SCDHEC's past costs of response from Carl S. Rush in

## 8 NOTICES

the amount of \$24,000. In consideration of the foregoing, the Cost Recovery Settlement Agreement provides for a release of Carl S. Rush from further liability and confers contribution protection up him pursuant to CERCLA 42 U.S.C. § 9613.

Notice of the proposed Cost Recovery Settlement Agreements has been provided to all identified potentially responsible parties. Copies of the Cost Recovery Settlement Agreement may be obtained on-line at [http://www.dhec.sc.gov/environment/lwm/public\\_notice.asp](http://www.dhec.sc.gov/environment/lwm/public_notice.asp) or by providing a written Freedom of Information request to:

Mr. Jody Hamm  
Freedom of Information Office  
South Carolina Department of Health and Environmental Control  
2600 Bull Street  
Columbia, SC 29201-1708

Any comments must be submitted in writing, postmarked no later than July 27, 2009 and addressed to:

Mr. David Wilkie  
Bureau of Land & Waste Management  
South Carolina Department of Health and Environmental Control  
2600 Bull Street  
Columbia, SC 29201  
[wilkietd@dhec.sc.gov](mailto:wilkietd@dhec.sc.gov)

UPON APPROVAL AND ENTRY OF THE COST RECOVERY SETTLEMENT AGREEMENT BY THE COURT, ANY AND ALL CLAIMS BY ANY AND ALL PERSONS AGAINST THE SETTLING DEFENDANTS SEEKING CONTRIBUTION FOR MATTERS ENCOMPASSED BY THE COST RECOVERY SETTLEMENT AGREEMENT SHALL BE FORECLOSED.

### **DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL**

#### **NOTICE**

Section IV of R.61-98, the State Underground Petroleum Environmental Response Bank (SUPERB) Site Rehabilitation and Fund Access Regulation, requires that the Department of Health and Environmental Control evaluate and certify site rehabilitation contractors to perform site rehabilitation of releases from underground storage tanks under the State Underground Petroleum Environmental Response Bank (SUPERB) Act.

Class I Contractors perform work involving the collection and interpretation of investigative data; the evaluation of risk; and/or the design and implementation of corrective action plans. Class I applicants must satisfy registration requirements for a Professional Engineer or Geologist in South Carolina. Class II Contractors perform work involving routine investigative activities (e.g., soil or ground water sampling, well installation, aquifer testing) where said activities do not require interpretation of the data and are performed in accordance with established regulatory or industry standards.

Pursuant to Section IV.B.1., the Department is required to place a list of those contractors requesting certification on public notice and accept comments from the public for a period of thirty (30) days. If you wish to provide comments regarding the companies and/or individuals listed below, please submit your comments in writing, no later than July 26, 2009 to:



Contractor Certification Program  
South Carolina Department of Health and Environmental Control  
Bureau of Land and Waste Management - Underground Storage Tank Program  
Attn: Michelle Dennison  
2600 Bull Street  
Columbia, SC 29201

The following companies and/or individuals have applied for certification as Underground Storage Tank Site Rehabilitation Contractors:

Class I

Class II

AECS  
Attn: Kenneth A. Lauber  
PO Box 4668  
Greenville, SC 29608

ENERCON  
Attn: Brian Shinall  
1341 Canton Rd, Ste 450  
Marietta, GA 30066

## 10 DRAFTING NOTICES

### STATE ATHLETIC COMMISSION

#### CHAPTER 20

Statutory Authority: 1976 Code Sections 40-1-70 and 40-81-10 et seq.

#### **Notice of Drafting:**

The State Athletic Commission proposes to promulgate regulations to implement the Mixed Martial Arts Act, Act 57, passes during the 2009 meeting of the General Assembly. Interested persons may submit comments to Randall Bryant, S.C. Department of Labor, Licensing and Regulation, Post Office Box 11329, Columbia, S.C. 29211-1329.

#### **Synopsis:**

The 2009 Act 57 was passed so as to make the combative sport of mixed martial arts competition legal in South Carolina and to provide for regulation by the State Athletic Commission. The Commission proposes to promulgate regulations to provide for the manner in which the Act shall be implemented. Interested parties are specifically requested to comment on the suitability of the State of Ohio regulations of mixed martial arts as a basis and guide for regulation in South Carolina.

### STATE BOARD OF EDUCATION

#### CHAPTER 43

Statutory Authority: 1976 Code Sections 59-5-60(1), 59-26-10 et seq., and 20 U.S.C. 6301 et seq.

#### **Notice of Drafting:**

The South Carolina Department of Education proposes to amend regulation 43-62, Requirements for Additional Areas of Certification. Interested persons may submit their comments in writing to Mark A. Bounds, Deputy Superintendent, Division of Educator Quality and School Leadership, 3700 Forest Drive, Suite 500, Columbia, South Carolina 29204 or by e-mail to [mbounds@leaders.ed.sc.gov](mailto:mbounds@leaders.ed.sc.gov). To be considered, all comments must be received no later than 5:00 p.m. on July 27, 2009.

#### **Synopsis:**

Regulation 43-62 governs the certification requirements for educators in South Carolina. Amendments to regulation 43-62 will refine and update the regulation so that it continues to provide highly qualified educators for South Carolina public schools.

Legislative review of this proposal will be required.

**DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL**  
**CHAPTER 61**

Statutory Authority: 1976 Code Sections 44-93-10 et seq. and 44-93-100

**Notice of Drafting:**

The Department of Health and Environmental Control is proposing to amend R.61-105, Infectious Waste Management Regulations. This current Notice, published in the State Register on June 26, 2009, replaces and supercedes a previous Notice of Drafting that was published in the *State Register* on July 25, 2008. Relevant comments received during the 2008 notice of drafting comment period will be considered and need not be resubmitted. Interested persons may submit their views on these current proposals by writing to Richard Haynes, Director of the Division of Waste Management, Bureau of Land and Waste Management, Department of Health and Environmental Control, 2600 Bull Street, Columbia, SC 29201. To be considered, written comments must be received no later than 5:00 p.m. on July 27, 2009, the close of the drafting comment period.

**Synopsis:**

The South Carolina Infectious Waste Management Regulations were last amended June 24, 2005. The Department of Health and Environmental Control proposes to amend R. 61-105, the Infectious Waste Management Regulations, to add or clarify definitions of terminology used in the Regulation. Changes will be made to include the embalming process as a potential source of regulated infectious waste, set a treatment standard for this waste, and create an exemption from permitting as a treatment facility for facilities whose only treatment of infectious waste is that of embalming waste to meet this standard.

The amendments will cover facilities that currently utilize storage tanks to store their liquid embalming waste as well as any new facilities that plan to do embalming and choose to store their liquid embalming waste in a storage tank.

Allowances for alternate recordkeeping, labeling, and communication will be created for generators and transporters in regards to weight, biohazard placarding, waste protocol, and manifesting. Duplicated or outdated requirements will be deleted, including a continual refrigeration requirement and transporters' radiological monitoring. Requirements in conflict with federal Department of Transportation regulations will be deleted or revised. Persons who meet the United States Postal Service Domestic Mail Manual packaging requirements will be exempted from obtaining a permit provided that only packages that meet this requirement are transported. Generator registration and fee requirements will be clarified, and facilities that close will be required to notify the Program. New requirements will be created for situations that could create a public health risk that have not been addressed in the past, including vehicles left unattended carrying infectious waste and tanks storing infectious waste treatment residue. Additionally, clarifications will be made to the regulations in addressing the handling and treatment of regulated infectious waste by small quantity generators and transporters. Language clarifying the appeals process will be added.

Additionally, stylistic changes which may include corrections for internal consistency, clarification, references, and spelling will be made to improve the overall text of the regulation.

Legislative review of this amendment will be required.

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Document No. 4079  
**DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL**  
CHAPTER 61

Statutory Authority: 1976 Code Sections 44-55-10 et seq.

61-58. State Primary Drinking Water Regulation

### **Preamble:**

The Department proposes to amend R.61-58 to adopt federal requirements pursuant to 40 CFR 141 and 142. These changes are to meet federal requirements of the Lead and Copper: Short Term Regulatory Revisions and Clarifications in the final rule published in the Federal Register on October 10, 2008, at 40 CFR Parts 141 and 142 and are necessary to maintain consistency with the National Primary Drinking Water Regulations. This rule is intended to make minor changes in sampling procedures and lead service line replacement requirements and enhance public education requirements under the Lead and Copper Rule.

Legislative review of these proposed regulations is not required, nor is a preliminary fiscal impact statement or a statement of rationale required.

A Notice of Drafting for this proposed amendment was published in the State Register on September 26, 2008.

### Discussion of Proposed Revisions:

#### General Requirements

##### R.61-58.11.B(1)(c)(v)

Added new paragraph changing the compliance requirements.

##### R.61-58.11.B(5)

Revised to require that consumers are notified of sampling results.

#### Applicability of Corrosion Control Treatment Steps to Small, Medium Size and Large Water Systems

##### R.61-58.11.C(2)(c)(iii)

Revised to require Department review and approval of source changes.

##### R.61-58.11.C(5)(a)

Revised to clarify monitoring period.

##### R.61-58.11.C(5)(b)

Revised to clarify monitoring period.

#### Source Water Treatment Requirements

##### R.61-58.11.E(1)(a)

Revised to specify when submittal is due.

#### Lead Service Line Replacement Requirements

##### R.61-58.11.F(2)

Renumbered to R.61-58.11.F(2)(a) and revised to clarify monitoring period.

R.61-58.11.F(2)(b)

Added to specify additional requirements for lead service line replacement.

Public Education and Supplemental Monitoring Requirements

R.61-58.11.G

Revised entire section pertaining to public education language and supplemental monitoring.

Monitoring Requirements for Lead and Copper in Tap Water

R.61-58.11.H(2)(e)

Revised to correct reference.

R.61-58.11.H(3)

Revised to clarify monitoring requirements.

R.61-58.11.H(4)(d)(i)

Revised to clarify monitoring requirements.

R.61-58.11.H(4)(d)(ii)

Revised to clarify monitoring requirements.

R.61-58.11.H(4)(d)(iii)

Revised to clarify sample collection requirements.

R.61-58.11.H(4)(d)(iv)(A)

Added to allow for different monitoring periods.

R.61-58.11.H(4)(d)(iv)(B)

Added to clarify monitoring requirements.

R.61-58.11.H(4)(d)(vi)(B) & R.61-58.11.H(4)(d)(vi)(B)(1)

Revised to clarify monitoring requirements.

R.61-58.11.H(4)(d)(vii)

Revised to include Department notification requirements.

R.61-58.11.H(7)(d)(i)

Revised to clarify monitoring requirements.

R.61-58.11.H(7)(d)(iii)

Revised to include Department notification requirements.

Monitoring Requirements for Water Quality Parameters

R.61-58.11.I(4)

Revised to clarify sample collection period.

R.61-58.11.I(5)(b)(i)

Revised to clarify monitoring requirements.

## **14 PROPOSED REGULATIONS**

R.61-58.11.I(5)(b)(ii)

Revised to clarify monitoring requirements.

### Monitoring Requirements for Lead and Copper in Source Water

R.61-58.11.J(2)

Revised to clarify monitoring requirements.

R.61-58.11.J(4)(a)(i)

Revised to clarify monitoring requirements.

R.61-58.11.J(4)(a)(ii)

Revised to clarify monitoring requirements.

R.61-58.11.J(5)(a)

Revised introductory paragraph to clarify monitoring requirements.

R.61-58.11.J(5)(b)

Revised introductory paragraph to clarify monitoring requirements.

### Reporting Requirements

R.61-58.11.L(1)(a)

Revised introductory paragraph to clarify monitoring period.

R.61-58.11.L(1)(b)

Revised introductory paragraph to correct reference.

R.61-58.11.L(1)(c)

Revised to clarify Department notification and approval requirement.

R.61-58.11.L(5)(a)

Revised to clarify reporting requirements to the Department.

R.61-58.11.L(5)(b)

Revised introductory paragraph to clarify reporting requirements to the Department.

R.61-58.11.L(5)(b)(ii)

Revised to clarify reporting requirements to the Department.

R.61-58.11.L(6)(a)

Revised to clarify reporting requirements to the Department.

R.61-58.11.L(6)(a)(i)

Revised to correct reference.

R.61-58.11.L(6)(c)

Added to clarify reporting requirements to the Department.

### Required Additional Health Information

R.61-58.12.D(4)

Revised to include specific lead health effects language in consumer confidence reports.

**Notice of Public Hearing and Opportunity for Public Comment:**

Interested members of the public and regulated community are invited to make oral or written comments on the proposed amendment to R.61-58 at a public hearing to be conducted by the Board of Health and Environmental Control at its regularly-scheduled meeting August 13, 2009. The public hearing will be held in the Board Room of the Commissioner's Suite, Third Floor, Aycock Building of the Department of Health and Environmental Control at 2600 Bull Street, Columbia, S.C. The Board meeting commences at 10:00 a.m. at which time the Board will consider items in the order presented on its agenda. The agenda is published by the Department 24 hours in advance of the meeting. Persons desiring to make oral comments at the hearing are asked to limit their statements to five minutes and, as a courtesy, are asked to provide written comments of their presentations for the record.

Interested persons are also provided an opportunity to submit written comments on the proposed amendment of R.61-58 by writing Douglas B. Kinard at Bureau of Water, S.C. Department of Health and Environmental Control, 2600 Bull Street, Columbia, S.C. 29201; Fax number (803) 898-4215. Written comments must be received no later than July 27, 2009. Comments received by the deadline shall be submitted in a Summary of Public Comments and Department Responses for the Board's consideration at the public hearing, as noticed above.

Copies of the text of the proposed amendments for public notice and comment may be obtained by contacting Douglas B. Kinard at Bureau of Water, South Carolina Department of Health and Environmental Control, 2600 Bull Street, Columbia, South Carolina 29201: Telephone number (803) 898-4300; Fax number (803) 898-4215. An electronic copy of the proposed regulations may also be obtained from the Department's Regulatory information website in its *DHEC Regulation Development Update* at <http://www.scdhec.gov/administration/regs/>. Click on the *Update*, then the Water category and scroll down to the proposed amendments of R.61-58, State Primary Drinking Water Regulations.

**Statement of Need and Reasonableness:**

The Statement of Need and Reasonableness was determined by staff analysis pursuant to S.C. Code Sections 1-23-115(C)(1)-(3) and (9)-(11):

DESCRIPTION OF REGULATION: Amendment to Regulation 61-58, State Primary Drinking Water Regulations

Purpose: The Department is proposing to amend R.61-58 to adopt federal regulations known as Lead and Copper: Short Term Regulatory Revisions and Clarifications This final rule was published in the *Federal Register* at 40 CFR Parts 141 and 142 on October 10, 2007. This amendment will comply with Federal law and ensure consistency with the Safe Drinking Water Act and the National Primary Drinking Water Regulations and will enable the Department to retain primary enforcement responsibility for the public drinking water supervision program. This action is mandated by the 1996 amendments to the Federal Safe Drinking Water Act. The proposed regulations will comply with 40 CFR Parts 141 and 142.

Legal Authority: The State Primary Drinking Water Regulations are authorized by the Safe Drinking Water Act at S.C. Code Ann. 44-55-10 et seq.

Plan for Implementation: The proposed amendments would be incorporated within R.61-58 upon approval by the Board of Health and Environmental Control and publication in the *State Register* as a final regulation. The proposed amendments will be implemented in the same manner in which the existing regulation is implemented.

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### DETERMINATION OF NEED AND REASONABLENESS OF THE PROPOSED REGULATION BASED ON ALL FACTORS HEREIN AND EXPECTED BENEFITS:

The adoption of these regulations will allow the Department to continue being the primacy agency for the implementation of the Safe Drinking Water Act and the National Primary Drinking Water Regulations in the state. This action is mandated by the 1996 amendments to the Federal Safe Drinking Water Act. The proposed regulations will comply with 40 CFR Parts 141 and 142. This rule is intended to make minor changes in sampling procedures and lead service line replacement requirements and enhance public education requirements under the Lead and Copper Rule.

### DETERMINATION OF COSTS AND BENEFITS:

A fiscal impact statement is not required for regulations that do not require legislative review pursuant to S.C. Code Section 1-23-120; however, the Lead and Copper: Short Term Regulatory Revisions and Clarifications will have minimal financial impact. See 40 CFR 141 for more detailed information.

### UNCERTAINTIES OF ESTIMATES:

Minimal.

### EFFECT ON ENVIRONMENT AND PUBLIC HEALTH:

There will be no effect on the environment. The amendments will promote public health through enhanced public education.

### DETRIMENTAL EFFECT ON THE ENVIRONMENT AND PUBLIC HEALTH IF THE REGULATION IS NOT IMPLEMENTED:

There will be no detrimental effect on public health or the environment if the amendments are not implemented.

### **Text:**

The full text of this regulation is available on the South Carolina General Assembly Home Page: <http://www.scstatehouse.net/regnsrch.htm>. Full text may also be obtained from the promulgating agency.



Document No. 4039  
**CLEMSON UNIVERSITY**  
**STATE CROP PEST COMMISSION**  
 CHAPTER 27

Statutory Authority: 1976 Code Section 46-9-40

27-137. Designation of Asian Citrus psyllid as Plant Pest and Quarantine

**Synopsis:**

Asian citrus psyllid (ACP), *Diaphorina citri* Kuwayama, has been discovered in Charleston County, Beaufort County and Colleton County. It is the primary vector for citrus greening, also called Huanglongbing or yellow dragon disease, which is one of the more serious diseases of citrus. Citrus greening disease is a threat to the US citrus industry and has been found throughout Florida and in Orleans Parish, Louisiana. The proposed actions will focus on the most effective method of preventing the introduction of the disease into the State by giving greater effect to state and federal quarantines at point of origin.

**Instructions:**

This is a new regulation, designated as Regulation 27-137. Insert the new regulation in numerical order in the South Carolina Rules and Regulations. Additionally, insert the term “Asian citrus psyllid (ACP), *Diaphorina citri* Kuwayama” in the proper alphabetical order in Regulation 27-135.

**Text:**

27-137. Designation of Asian Citrus psyllid as plant pest and quarantine

1. Asian citrus psyllid (ACP), *Diaphorina citri* Kuwayama, is hereby designated a plant pest, pursuant to Title 46, Chapter 9, Section 15, SC Code of Laws.
2. Effective immediately, a quarantine is placed on Charleston County, Beaufort County and Colleton County for ACP. Regulated articles as cited below may not be moved into or within unregulated areas of South Carolina from these counties except as outlined hereafter.
3. The following are regulated articles based on the fact that they are plants or plant parts that are hosts of ACP: All plants, budwood, cuttings, or other fresh or live plant parts, except seed and fruit, of: *Aegle marmelos*, *Aeglopsis chevalieri*, *Afraegle gabonensis*, *A. paniculata*, *Atalantia monophylla*, *Atalantia spp.*, *Balsamocitrus dawaei*, *Bergera (=Murraya) koenigii*, *Calodendrum capense*, *X Citroncirus webberi*, *Citropsis articulata*, *Citropsis gilletiana*, *C. schweinfurthii*, *Citrus madurensis (= X Citrofortunella microcarpa)*, *Citrus spp.*, *Clausena anisum-olens*, *C. excavata*, *C. indica*, *C. lansium*, *Eremocitrus glauca*, *Eremocitrus hybrid*, *Fortunella spp.*, *Limonia acidissima*, *Merrillia caloxylon*, *Microcitrus australasica*, *Microcitrus australis*, *M. papuana*, *X Microcitronella spp.*, *Murraya spp.*, *Naringi crenulata*, *Pamburus missionis*, *Poncirus trifoliata*, *Severinia buxifolia*, *Swinglea glutinosa*, *Tetradium ruticarpum*, *Toddalia asiatica*, *Triphasia trifolia*, *Vepris (=Toddalia) lanceolata*, and *Zanthoxylum fagara*.
4. In order to be eligible to move interstate or intrastate from ACP quarantined areas, regulated articles must meet the following requirements:
  - A. Treatment. All regulated articles moving from quarantined counties must be treated with any approved treatment for ACP either listed in 7 CFR 305 or listed below in this Order using an Environmental Protection Agency (EPA)-approved product labeled for use in nurseries. Persons applying treatments must follow the product label, its applicable directions, and all restrictions and precautions, including statements pertaining to Worker Protection Standards.

## 18 FINAL REGULATIONS

i. Regulated articles not intended for consumption must be treated with a drench containing imidacloprid as the active ingredient within 30 days prior to shipping and also be treated with a foliar spray with a product containing either acetamiprid, chlorpyrifos, or fenpropathrin as the active ingredient within 10 days prior to movement.

ii. Or, in the case of regulated articles intended for consumption or decorative use, such as fresh curry leaf (*Bergera Murraya koenigii*), or mock orange (*Murraya paniculata*) leaves that are incorporated into leis or floral arrangements, this plant material must be treated prior to the interstate movement in accordance with APHIS treatment schedule T101-n-2 (methyl bromide fumigation treatment for external feeding insects on fresh herbs) at the times and rates specified in the treatment manual and safeguarded until movement. As an alternative to methyl bromide fumigation, regulated materials originating from an area not quarantined for CG may be irradiated in accordance with 7 CFR 305.

B. Inspection. All regulated articles that have been treated as provided above must be inspected by an inspector and found free of the ACP within 72 hours prior to shipping. Inspection of curry leaf that is treated with methyl bromide fumigation will not be required since the treatment is considered to be effective in killing all life stages of ACP that might be present.

C. Compliance Agreements. Any person engaged in the business of growing or handling regulated articles for intrastate movement shall enter into a compliance agreement with the Department of Plant Industry to facilitate the movement of regulated articles in accordance with all of the requirements of the above requirements. Such persons must agree to handle, pack, process, treat, and move regulated articles in accordance with state regulations; to use all permits and certificates in accordance with instructions; and to maintain and offer for inspection such records as may be required.

D. Cancellation. Any compliance agreement may be cancelled by an inspector if the inspector finds that the person who entered into the compliance agreement has failed to comply with all of the regulatory requirements.

### **Fiscal Impact Statement:**

No additional state funding is requested. The Commission estimates that no additional costs will be incurred by the State and its political subdivisions in complying with the proposed revisions.

### **Statement of Rationale:**

This regulation is necessary to enhance the ability of the Commission to prevent the introduction and spread of Asian citrus psyllid (ACP), *Diaphorina citri* Kuwayama into the State, while minimizing administrative burdens on ornamental nursery operators and agriculture generally.

Document No. 4062  
**CLEMSON UNIVERSITY**  
**STATE CROP PEST COMMISSION**  
 CHAPTER 27

Statutory Authority: 1976 Code Section 46-9-40

27-78. *Phytophthora ramorum* (*P. ramorum*) Quarantine

**Synopsis:**

The State Crop Pest Commission proposes to impose certain requirements on the importation of plant material which is a host for *Phytophthora ramorum* (*P. ramorum*) into the state. *P. ramorum* manifests itself in a disease known as Sudden Oak Death but also as a second disease known as ramorum blight. Certain areas of certain states are already under state and/or federal quarantine for this pathogen. The proposed actions will focus on the most effective method of preventing the introduction of the pathogen into the State by giving greater effect to state and federal quarantines at point of origin.

The Notice of Drafting was published in the *State Register* on September 26, 2008.

**Instructions:**

This is a new regulation, designated as Regulation 27-78. Insert the new regulation in numerical order in the South Carolina Rules and Regulations as indicated above.

**Text:**

ARTICLE 6E  
 PHYTOPHTHORA RAMORUM QUARANTINE

27-78. *Phytophthora ramorum* Quarantine

1. Regulated Plant Pest. *Phytophthora ramorum*.
2. Regulated Area. Any area of any state, territory or country under state or federal quarantine for *Phytophthora ramorum*.
3. Regulated Articles:
  - a. All host and associated plants for *Phytophthora ramorum*.
  - b. Any other product, articles, or means of conveyance of any character whatsoever, not covered by the above, when it is determined by a quarantine officer of a state or federal plant pest regulatory agency that they present a hazard of spreading *Phytophthora ramorum*.
  - c. A complete listing of host material may be found at [http://www.aphis.usda.gov/plant\\_health/plant\\_pest\\_info/pram/downloads/pdf\\_files/usdaprlist.pdf](http://www.aphis.usda.gov/plant_health/plant_pest_info/pram/downloads/pdf_files/usdaprlist.pdf)
4. Movement of Regulated Articles.
  - a. A state Phytosanitary certificate is required for movement of any regulated article from any regulated area into South Carolina.
  - b. Prior notification of movement of *Phytophthora ramorum* host and associated plant material is required. The shipper shall send by mail, facsimile or e-mail a copy of the State Phytosanitary Certificate to: Clemson University Department of Plant Industry, 511 Westinghouse Road, Pendleton, SC 29670; facsimile 864-646-2135; email [nedward@clemson.edu](mailto:nedward@clemson.edu). The Certificate must list the type and quantity of plants, the address of shipper, the name and address of recipient, the date and results of last *P. ramorum* nursery test, and contact

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number(s) of the shipper and recipient. Notice must arrive at least 24 hours prior to scheduled shipment arrival. Commodities shipped in violation of the requirements or with positive test results may be returned to their point of origin or destroyed at the expense of the owner.

### **Fiscal Impact Statement:**

No additional state funding is requested. The Commission estimates that no additional costs will be incurred by the State and its political subdivisions in complying with the proposed revisions.

### **Statement of Rationale:**

This regulation is necessary to enhance the ability of the Commission to prevent the introduction, and if necessary, the spread, of *Phytophthora ramorum* into the State, while minimizing administrative burdens on ornamental nursery operators and agriculture generally.

Document No. 4001  
**CLEMSON UNIVERSITY**  
**STATE CROP PEST COMMISSION**  
CHAPTER 27  
Statutory Authority: 1976 Code Section 46-9-40

### 27-75. Plum Pox Virus Quarantine

#### **Synopsis:**

Plum Pox Virus has been reported in the United States. It is a systemic disease of plants which, once established, may be controlled only by complete destructions of the plant. The virus may pose a serious threat to the State's stone fruit industry. The proposed amendments will focus on the most effective method of preventing the introduction of the disease into the State by giving greater effect to state and federal quarantines at point-of-origin.

#### **Instructions:**

The following section of Regulation 27-75 is modified as provided below. All other items and sections remain unchanged.

#### **Text:**

27-75.3.C. Issuance of Certificates. Certificates will be issued on the following conditions only:

1. (No Change)
2. If PPV is found in a continental U.S. State outside of Pennsylvania and is not under state and/or federal quarantine, then all Prunus material, to include ornamental stock, will be subjected to the guidelines as stated in Section 75.3.C.1.
3. (No change)
4. (No change)

**Fiscal Impact Statement:**

No additional state funding is requested. The Commission estimates that no additional costs will be incurred by the State and its political subdivisions in complying with the proposed revisions.

**Statement of Rationale:**

Amendment of this regulation is necessary to enhance the ability of the Commission to prevent the introduction of Plum Pox Virus into the State, while minimizing administrative burdens on ornamental nursery operators.

Document No. 4040

**DEPARTMENT OF CONSUMER AFFAIRS****CHAPTER 28**

Statutory Authority: 1976 Code Sections 37-7-101 et seq., Particularly Sections 37-7-112, 37-7-115 and 37-7-121

## 28-700. Consumer Credit Counseling Requirements

**Synopsis:**

This regulation amends and modifies current Regulation 28-700. In 2005 the General Assembly passed the *Consumer Credit Counseling Act*, 1976 Code Section 37-7-101 et seq., requiring the licensing of credit counseling organizations and credit counselors. These organizations and counselors provide credit counseling services to consumers, which include: distributing funds to creditors; offering to improve credit scores, histories, or ratings; and/ or negotiating with creditors to reduce a consumer's obligations. The Act requires the Department to set the fees a credit counseling organization can charge a consumer, permits the Department to regulate events which must be reported by a licensee and further allows the Department to promulgate regulations necessary to effectuate the purposes of the Chapter.

The regulation clarifies and amends the current fee structure as based on the service provided. The regulation also sets the procedures and criteria for persons other than the Department seeking to sponsor and provide continuing professional education courses to licensees for the purpose of such licensees satisfying the requirements of S.C. Code Ann. Section 37-7-105. Allowing persons other than the Department to offer continuing professional education and maintain a streamlined process for department and panel approval of the sponsor and their courses is imperative to licensee completion of the continuing professional education requirement, especially out-of-state licensees who are often unable to attend Department sponsored courses. Record keeping requirements, including a listing of documents that must be maintained by licensees, are included as well as a listing of specific events that must be reported to the Department within ten days of the occurrence. These provisions are necessary to enable the Department to ascertain a licensee's compliance with the Act.

**Instructions:**

Regulation 28-700 is modified as provided below.

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### Text:

#### 28-700. Consumer Credit Counseling Requirements.

(Statutory Authority: 1976 Code Section 37-7-101, as amended)

##### A. Definitions.

(1) Definitions shall be those contained in the Consumer Credit Counseling Act, S.C. Code Ann. Section 37-7-101 et seq. and the following:

(a) "Fees and charges of licensees" means the amount of money the credit counseling organization licensee may charge to the consumer.

(b) "Good faith" means honesty in fact and the observance of reasonable standards of fair dealing.

(c) "Instructor" means a person that presents or teaches a continuing education course to licensees or otherwise guides licensees through the course materials.

(d) "Sponsor" means a person that offers or otherwise coordinates a continuing professional education course.

##### B. Fees and Charges of Licensees.

(1) A licensee may not charge or receive from a consumer, directly or indirectly, a fee except as delineated in this section. A credit counseling organization may not impose or receive fees under more than one subitem listed under subsection (2) below.

(2) The following fees may be charged based on the primary purpose of the services contracted for:

(a) If the organization receives or offers to receive funds from the consumer for the purpose of distributing the funds among the consumer's creditors in full or partial payment of the consumer's debts:

(i) an initial consultation fee, not to exceed fifty dollars;

(ii) a DMP set-up fee, not to exceed thirty dollars;

(iii) a monthly maintenance fee, not to exceed ten dollars times the number of creditors in the DMP at the time the fee is assessed, but not more than fifty dollars for each month;

(iv) a reinstatement fee, not to exceed twenty-five dollars.

(b) If the organization improves or offers to improve a consumer's credit record, history or rating:

(i) an initial consultation fee, not to exceed fifty dollars;

(ii) a monthly maintenance fee, not to exceed forty dollars for each month;

(iii) a reinstatement fee, not to exceed twenty-five dollars.

(c) If the organization negotiates or offers to negotiate to defer or reduce a consumer's obligations with respect to credit extended by others:

(i) an initial consultation fee, not to exceed fifty dollars;

(ii) a monthly maintenance fee, not to exceed ten dollars times the number of creditors remaining at the time the fee is assessed, but not more than fifty dollars for each month;

(iii) a reinstatement fee, not to exceed twenty-five dollars.

(3) Any monies received by a person in violation of the Consumer Credit Counseling Act or Regulation 28-700 shall be returned to the payor.

(4) No person shall receive a fee from a consumer unless the fee permitted by S.C. Code Ann. Section 37-7-101 et seq. and/or R.28-700 is delineated in the contract and it has been established, as based on a good faith determination, that the consumer will benefit from the services to be received pursuant to the contract.

##### C. Continuing Professional Education

(1) Pursuant to S.C. Code Ann. Section 37-7-105, persons other than the department may seek approval to offer continuing professional education courses to licensees. Persons other than the department seeking to provide a continuing professional education course to licensees for the purpose of fulfilling the requirements of section 37-7-105 must submit a sponsor application to the department on forms prescribed by the department. The application shall at a minimum include:

(a) Applicant's name, telephone number, address and contact person;

(b) Description of the applicant's attendance policy, including a copy of the attendance form or document that will be kept by the sponsor to evidence attendance;

(c) A copy of the certificate of completion to be delivered to licensees completing an approved course.

(2) Upon review of the application, the department will either issue the applicant a certificate of approval or a letter of denial. Sponsor certificates are valid for two years from the date of issuance. Thirty days prior to certificate expiration, a notarized letter requesting an extension of the certificate must be submitted to the department. The department will either renew the certificate or issue a letter of denial.

(3) No continuing professional education course credit will be given for a course unless the sponsor has been approved by the department.

(4) Approved sponsors may submit courses for approval by the continuing professional education panel. To be considered for approval, the sponsor must submit a course approval application to the department on forms prescribed by the department. The application shall at a minimum include:

(a) Course Information, including course title, type, location and continuing professional education hours requested;

(b) Course content outline and coordinating objectives;

(c) Instructor name, address, telephone number and employer;

(d) Description of the instructor's qualifications;

(e) Copy of advertisements and/or other materials marketing the course;

(f) A copy of the course materials, including instructor guides, handouts, tests and class exercises;

(g) If a person other than the sponsor furnished, prepared and/or authored the continuing professional education course materials, written authorization permitting the sponsor to utilize the materials.

(5) Sponsors shall also submit a copy of the course approval application and course materials directly to each continuing professional education panel member for approval.

(6) Licensees who attended a course not submitted for prior approval by an approved sponsor may submit to the department the course materials, as described in subitem (4)(f) above, the certificate of completion received, and an approval application on a form prescribed by the department. A copy of the required materials must also be submitted directly to each continuing professional education panel member for approval.

(7) The department may require that course materials be submitted in electronic form.

(8) The department may permit a licensee to receive continuing professional education credit for a course that was not approved at the time of attendance, but was subsequently approved by the continuing professional education panel.

#### D. Record keeping

(1) A credit counseling organization must maintain and preserve the following records:

(a) Any documents signed by and/or given to the consumer, including the budget analysis and contract required by sections 37-7-108 and 37-7-110;

(b) Creditor consent forms required by section 37-7-109;

(c) Trust account statements required by section 37-7-111;

(d) Name and address of the FDIC-insured institution where South Carolina consumer funds are held and the number of the account utilized;

(e) Telephone scripts and marketing materials;

(f) Contracts entered into with service providers;

(g) Consumer complaint files;

(h) Copy of the organization's records disposal and security breach notification policies utilized to maintain compliance with the South Carolina Financial Identity Fraud and Identity Theft Protection Act, S.C. Code Ann. Sections 37-20-110 *et seq.*

(2) Consumer records must be maintained and preserved for at least three years after the termination of the contract. All business records must be maintained for at least three years after the discontinuation of the account, script, marketing materials, contract, or other record or at least three years after the date of the complaint, as applicable.

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(3) All books and records shall be kept current and available for examination by the Department. Records and account systems maintained in whole or in part by electronic data processing may be used in lieu of the books, files and records required by S.C. Code Ann. Sections 37-7-111 and 37-7-114 if they contain equivalent information and such information is accessible to the Department. Electronic duplicates of original documents may satisfy the requirements of this section.

### E. Reporting Requirements

(1) Within ten business days after the occurrence of any of the following events, a licensee shall file a written report with the department describing the event and its expected impact upon the licensee's business:

(a) The institution of a revocation, suspension, or other proceeding or action against the licensee by a governmental authority. The licensee shall advise the department within thirty days of the proceeding or action being dismissed, settled or otherwise resolved.

(b) The institution of a civil action against the licensee. The licensee shall advise the department within thirty days of the action being dismissed, settled or otherwise resolved.

(c) The filing of bankruptcy, reorganization, or receivership proceedings by or against the licensee;

(d) The institution of a revocation, suspension, or other proceeding against the licensee by a governmental authority which is related to the licensee's credit counseling organization in any state;

(e) Felony indictments or convictions of the licensee or any of its members, partners, directors, officers, trustees, beneficiaries, or principles, if known;

(f) Any action taken by the Internal Revenue Service against a nonprofit licensee, its officers, directors, employees, agents, or other disqualified persons with respect to the organization within the meaning of Section 4958 of the Internal Revenue Code of 1986 as amended, including the imposition of penalties or excise taxes or the change, suspension, or revocation of the organization's tax exempt status;

(g) Opening a new business location within this State.

(2) If a licensee fails to make a report required by this section, the department may require the licensee to pay a late penalty of fifty dollars for each day the report is overdue.

### **Fiscal Impact Statement:**

The Department of Consumer Affairs estimates that no additional costs will be incurred by the State in complying with the regulation.

### **Statement of Rationale:**

The South Carolina *Consumer Credit Counseling Act* specifically provides for the Department to set the fee structure for licensees. The Act also permits and/or contemplates the drafting of reporting, recordkeeping and continuing professional education course approval requirements. Such modifications and additions are necessary to effectuate the consumer protection purpose of the law and to guide businesses with compliance.



Document No. 4029  
**STATE BOARD OF EDUCATION**  
 CHAPTER 43

Statutory Authority: 1976 Code Sections 59-5-60, 59-18-310, 59-18-320, 59-18-330, 59-18-340, 59-20-60,  
 and 20 U.S.C. 6301 et seq.

43-262. Assessment Program

**Synopsis:**

The State Board of Education proposes to amend R 43-262 in response to amendments to the Education Accountability Act of 1998 (EAA), S.C. Code Ann. § 59-18-310 (Supp. 2008).

Section-by-Section Discussion

Section I(A)	Deletes the reference to the Basic Skills Assessment Program legislation of 1978 (BSAP). Updates reference to the Education Accountability Act.
Section I(B)	Deletes reference to BSAP legislation. Deletes reference to the Palmetto Achievement Challenge Tests. Changing wording of agency to South Carolina Department of Education and deleting the word State. Adds the Palmetto Assessment of State Standards (PASS) and South Carolina Alternate Assessment (SC-Alt).
Section I(D-E)(2)(3)(4)	Changing wording of agency to South Carolina Department of Education and deleting the word State and adding the word statewide.
Section II(A)	Deletes reference to the Basic Skills Assessment Program (BSAP).
Section II(A)	Letter B now changes to A and updates reference to the Education Accountability Act. Deletes references to an exit examination in science and social studies.
Section II(B)	Letter C now changes to B. Deletes the word “modifications.”
Section II(C)	Letter D now changes to C. Changing wording of agency to South Carolina Department of Education and deleting the word State.
Section II(D)	Letter E now changes to D. Deletes the word “four” and adds the word “five.”
Section II(E)	Letter F now changes to E. Inserting the language from Section II(F)(2).
Section II(E)(1)	Reference to the BSAP exit examination has been deleted.
Section II(E)(2)	Deletes and adds language to Section II(E). Deletes “modifications.” Deletes HSAP-Alt (test no longer used) and adds SC-Alt. Deletes “R 43-262” and adds the words “this regulation.”
Section II(F)	Letter G now changes to F.
Section II(G)(1)	Letter H now changes to G. Change wording of agency to South Carolina Department of Education and deleting the word State.
Section II (G)(3)(4) (5)(6)(b)	Removes the wording “exit examination” and adds “HSAP.”
Section III	Deletes reference to the Readiness Tests for First and Second Grade.
Section IV	Deletes reference to the Norm Referenced Test.
Section (III)	Section V changes to Section III. Deletes references to reading and mathematics and grades 4 and 8. Changes bi-annual to annually and proscribed to prescribed.

**Instructions:**

The following section of Regulation 43-262 is modified as provided below. All other items and sections remain unchanged.

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### Text:

43-262. Assessment Program.

### I. STATEWIDE ASSESSMENT PROGRAM

A. The Education Accountability Act of 1998 (EAA), S.C. Code Ann. § 59-18-310 (Supp. 2008), and the No Child Left Behind Act of 2001, 20 U.S.C. § 6301, et seq. (2002) (NCLB) require that the State Board of Education develop or adopt a statewide assessment program in certain grades and selected content/skill areas.

B. The statewide assessment program will involve testing public school students at selected grade levels and in selected content and skill areas at times specified by the South Carolina Department of Education. The grade(s) and content/skill areas to be included in the assessment program are identified by the EAA, NCLB, and State Board of Education regulations.

The statewide assessment program includes

Palmetto Assessment of State Standards (PASS),  
South Carolina Alternate Assessment (SC-Alt),  
Exit Examination, and  
End-of-Course Tests.

C. The program is funded through an annual appropriation included in the South Carolina General Appropriations Act. The request for such funding is included in the annual budget request of the State Superintendent of Education. Continued operation of the program is contingent upon the availability of funds.

D. Responsibilities of the South Carolina Department of Education for assessments in which school districts are required to participate.

1. Supply all necessary test materials, scoring, and standard score reports at no cost to the local school districts.

2. Pay all shipping costs for the transportation of test materials and score reports between the Department, school districts, and scoring service(s).

3. Provide workshops on test administration, interpretation, and utilization for district test coordinators and other selected staff.

4. Report the statewide results of the program to the State Board of Education on an annual basis.

5. Field-test, at the discretion of the State Superintendent of Education, new assessment instruments and/or procedures and recommend changes in the Statewide Assessment Program to the State Board of Education, the Education Oversight Committee, and other appropriate policy-making bodies.

E. Responsibilities of local school districts

1. As used in these regulations, "local school district" shall mean public school districts as well as other state-supported educational institutions that award state high school diplomas.

2. Participate in the statewide assessment program as required by law.

3. Designate one or more district test coordinators (DTCs) who will be the point of contact for the South Carolina Department of Education or its contractors as well as attend the workshops provided by the South Carolina Department of Education. The DTC is responsible for training school test coordinators (STCs) and the distribution, receipt, storage, and return of test materials and reports.

4. Administer the tests (including field tests) in accordance with procedures and at dates and times specified by the South Carolina Department of Education.

5. Maintain a complete and accurate inventory of all state-owned tests and related materials that are stored in the district.

F. Students with disabilities shall be included in the assessment program in compliance with the provisions of South Carolina and federal statutes and regulations.

G. The State Superintendent of Education is authorized to develop and implement such administrative procedures as he or she may deem necessary and appropriate for the purpose of implementing the South Carolina Statewide Assessment Program. Any administrative action taken under this regulation will be presented to the State Board of Education during the next regularly scheduled meeting of the Board.

## II. SOUTH CAROLINA HIGH SCHOOL EXIT EXAMINATION

A. The exit examination required by the Education Accountability Act (EAA), S.C. Code Ann. § 59-18-310 (Supp. 2008) shall be in standard written American English, braille, and signed language and shall consist of tests in English language arts and mathematics based on South Carolina curriculum standards. The requirement for passing the EAA exit examination in mathematics and English language arts shall be in effect for the graduating class of spring 2006.

For the purpose of the High School Assessment Program (HSAP), high school will be considered to include grades 9–12. Students will initially take HSAP in the second spring after their initial enrollment in high school. For purposes of meeting the state testing requirements these students will be considered as tenth graders.

B. Accommodations, if any, for special populations (e.g., Limited English Proficient students and students with documented disabilities) taking the exit examination shall be consistent with state and federal statutes and regulations.

C. To pass the exit examination, each student shall meet the minimum performance standard established by the South Carolina Department of Education on each part.

D. A student who is enrolled in the South Carolina public school system for the entire tenth-grade, eleventh-grade, and twelfth-grade years and remains actively enrolled and in good standing until graduation shall have a minimum of five opportunities to pass the examination.

E. Any student who fails to pass the exit examination and who is actively enrolled in school will take an equivalent form of only the parts on which he or she did not meet the minimum performance standard(s) at the next designated administration. Students will have two opportunities per year (spring and fall) to take the failed part or parts.

All students except students who meet the participation criteria for alternate assessment will take the HSAP in the second spring after initial enrollment in the ninth grade. Students with an IEP may take the HSAP with accommodations determined to be appropriate by the IEP team and allowable by state and federal statutes and regulations. Students who meet the participation criteria for alternate assessment will take the South Carolina Alternate Assessment (SC-Alt) in accordance with guidelines on file with the South Carolina Department of Education.

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For students with disabilities who meet all of the following conditions, the IEP team will determine on an annual basis participation in the HSAP.

- a. The student failed to pass any part of HSAP during the initial administration, and
- b. the student has not earned any Carnegie units in the core curriculum (mathematics, English language arts, social studies, and science), and
- c. the student is not enrolled in a course in the core curriculum required for high school graduation.

All students who do not meet these three conditions will take the examination as required by this regulation.

F. An administration of the exit examination may be available during the summer after the twelfth-grade year for students who have met all other requirements for graduation and who were actively enrolled in school.

G. Local school districts shall ensure

1. that the administration and security procedures established by the South Carolina Department of Education for the purpose of the exit examination are implemented;

2. that students and parent(s) or guardian(s) are adequately notified that passage of the exit examination is a requirement for a state high school diploma; notification shall be

- a. written,
- b. issued through an established procedure, and
- c. issued to students and parent(s) or guardian(s) by the seventh grade or upon entry into the system, whichever occurs later;

3. that the HSAP administration schedules are publicized;

4. that students who are recommended for a state high school diploma have passed all parts of the HSAP;

5. that students who do not pass a particular part or parts of the HSAP are provided academic assistance related to the part or parts not passed;

6. that students who have met all other requirements for graduation but have not passed the HSAP are advised that they may elect one of the following alternatives:

- a. to accept, in lieu of a state high school diploma, a state certificate indicating the number of credits earned and the grades completed;

- b. to continue active enrollment in high school until the age of 21 or enroll in an adult education program until he or she passes the HSAP; or

- c. to accept a state certificate and acquire additional opportunities to pass the exit examination by enrolling in high school until age 21 or in an adult education program.

## III. NATIONAL ASSESSMENT OF EDUCATIONAL PROGRESS (NAEP)

Tests will be administered annually to samples of students as part of the state NAEP assessment. Schools selected for state NAEP will participate in the assessment program as prescribed by NAEP policies.

**Fiscal Impact Statement:**

No additional state funding is requested. The South Carolina Department of Education estimates that no additional costs will be incurred by the state and its political subdivision in complying with the proposed revisions to R 43-262.

**Statement of Rationale:**

The Education Accountability Act of 1998 (EAA), S.C. Code Ann. § 59-18-310 (Supp. 2008), and the No Child Left Behind Act of 2001, 20 U.S.C. § 6301, et seq. (2002) (NCLB), require that the State Board of Education develop or adopt a statewide assessment program in certain grades and selected content/skill areas.

Document No. 4028

**STATE BOARD OF EDUCATION**

## CHAPTER 43

Statutory Authority: 1976 Code Sections 59-5-60 and 59-40-10 et seq.

43-600. Charter School Appeals

**Synopsis:**

The Department of Education proposes to repeal S.C. Code Ann. Regs. 43-600. S.C. Code Ann. Section 59-40-70 was amended to provide that any appeals by a charter school applicant or a local school board of trustees with respect to an application are to be appealed to the Administrative Law Court rather than the State Board of Education.

Notice of Drafting for the proposed repeal was published in the State Register on July 25, 2008.

## Section by Section Discussion

43-600. Repealed in its entirety.

**Instructions:**

Regulation 43-600 is to be repealed in its entirety.

**Text:**

43-600. Charter School Appeals (Repealed)

**Fiscal Impact Statement:**

None.

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### Statement of Rationale:

The law was amended in 2008 to transfer those appeals to the Administrative Law Court; therefore, this regulation is no longer necessary.

Document No. 4026  
**STATE BOARD OF EDUCATION**  
CHAPTER 43

Statutory Authority: 1976 Code Sections 59-5-60 and 59-40-10 et seq.

43-601. Procedures and Standards for Review of Charter School Applications

### Synopsis:

The State Board of Education has authority to promulgate regulations to set the standards for charter schools and to define and regulate virtual charter schools. The proposed amendments to Regulation 43-601 amend the standards to conform to changes in state law, add clarification, and to define virtual charter schools.

Pursuant to Senate Education Committee request dated April 7, 2009, the State Board of Education withdrew and resubmitted document number 4026 to clarify the language in Section III(B)(3) and Section III(B)(3)(c) relating to priority enrollment.

The proposed regulation will require legislative review.

A Notice of Drafting for the proposed amendments was published in the South Carolina State Register on August 22, 2008.

### Section by Section Discussion

Section I:	Added section to include definitions
Section II:	Renumbered section
Section II(A)	Added language to address the Advisory Committee's review of the quality of application and obligation to give a recommendation regarding the application
Section II(B)	An application timeline is added
Sections II(C)&(D)	Renumbered
Section III(B)(2)	Added a statement clarifying enrollment eligibility of students for schools sponsored by the South Carolina Public Charter School District
Section III(B)(3)	Added a statement "which may not exceed twenty percent of the enrollment of the charter school"
Section III(B)(3)(a):	Added the words "or previously enrolled" to conform to changes in the statute
Section III(B)(3)(c):	Deleted the words "provided enrollment does not exceed twenty percent of the enrollment of charter school"
Section III(B)(5):	Added statement that the section was not applicable to the South Carolina Public Charter School District schools
Section III(B)(6):	Replaced "local school board of trustees" with "sponsor" for clarity
Section III(D)(2):	No editorial change
Section III(D)(7):	Added the words "as applicable" and made an editorial change
Section III(F)(1):	Changed requirement for budget from "each term" to first five years
Section III(F)(2):	Changed name of Office of Finance
Section III(K)(1)(c):	Clarified that charter schools are subject to the requirements of the South Carolina School Facility Planning and Construction Guide as they relate to charter schools
Section III(L)(2)(b):	Addressed a certification issue for non-ADEPT schools

Section III(P):	Editorial changes
Section IV:	This section is added to provide additional standards related to virtual charter schools to reflect a recent change in the law.
Section V:	Numbering change
Section V:	Added language to require local school districts to specify in writing the conditions necessary for approval and the date by which the conditions must be met
Sections VI & VII:	Numbering change

**Instructions:**

The following section of Regulation 43-601 is modified as provided below. All other items and sections remain unchanged.

**Text:**

43-601. Procedures and Standards for Review of Charter School Applications.

I. DEFINITIONS

(A) "Charter school" means a public, nonreligious, nonhome-based, nonprofit corporation forming a school that operates within a public school district or the South Carolina Public Charter School District, but is accountable to the school board of trustees of that district which grants its charter. Nothing in this definition prohibits charter schools from offering virtual services pursuant to state law and subsequent regulations defining virtual schools.

(B) "Applicant" means the person who or nonprofit corporate entity that desires to form a charter school and files the necessary application with the South Carolina Public Charter School District Board of Trustees or the local school board of trustees of the district where the charter school is to be located. The applicant also must be the person who applies to the Secretary of State to organize the charter school as a nonprofit corporation.

(C) "Sponsor" means the South Carolina Public Charter School District Board of Trustees or the local school board of trustees of the district where the charter school is to be located, as provided by law, from which the charter school applicant requested its charter and which granted approval for the charter school's existence.

(D) "Charter committee" means the governing body of a charter school formed by the applicant to govern through the application process and until the election of a board of directors is held. After the election, the board of directors of the corporation must be organized as the governing body and the charter committee is dissolved.

(E) "Local school district" means any school district in the state except the South Carolina Public Charter School District and does not include special school districts.

(F) "Scholastic year" means the year that begins on the first day of July of each year and ends on the thirtieth day of June following.

II. APPLICATIONS TO BE CONSIDERED BY THE CHARTER SCHOOL ADVISORY COMMITTEE

(A) Review of Applications

All charter school applications must be reviewed by the Charter School Advisory Committee to determine compliance with the standards established below. The applications submitted to the Advisory Committee must demonstrate compliance with each standard. If the Advisory Committee determines that the application meets the standards set forth in this regulation, it must forward the application to the school district from which the applicant is seeking sponsorship. The Advisory Committee must make a recommendation to the school district to either approve or deny the charter.

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### (B) Application Timeline

Applications must be submitted to the Advisory Committee on or before May 1 to ensure completion of the review process by December 1 of the year preceding the opening of the charter school. If a charter, to include a conditional charter, is not issued by December 1, the opening will be delayed one scholastic year. Charter applications must propose school openings that are consistent with South Carolina's definition of a scholastic year. The applicant must submit the application to their selected sponsor on or before the date that the application is submitted to the CSAC for review. Evidence of this act must accompany the application to the CSAC.

### (C) Proposed Contract

The charter school application will be a proposed contract.

### (D) Requests for Additional Information

If the Advisory Committee determines that an application does not meet one or more of the standards, it may request clarification or additional information from the applicant or the district. The Advisory Committee has the authority to incorporate this additional information into the application.

## III. CHARTER SCHOOL APPLICATION STANDARDS

### (A) Mission Statement

The charter school application must include a mission statement that must be clear and must support the intent of the Charter Schools Act:

- (1) The purpose of the charter school must be clearly stated.
- (2) The purpose of the charter school must be consistent with the intent of the Charter Schools

Act:

- (a) S.C. Code Ann. Section 59-40-20 (Supp. 2007):

This chapter is enacted to:

- (i) improve student learning;
- (ii) increase learning opportunities for students;
- (iii) encourage the use of a variety of productive teaching methods;
- (iv) establish new forms of accountability for schools;
- (v) create new professional opportunities for teachers, including the opportunity to be responsible for the learning program at the school site; and
- (vi) assist South Carolina in reaching academic excellence.

- (b) S.C. Code Ann. Section 59-40-30 (Supp. 2007):

The purpose of the Charter Schools Act is to create a legitimate avenue for parents, teachers, and community members to take responsible risks and create new, innovative, and more flexible ways of educating all children within the public school system.

### (B) Admissions Policies and Procedures

The application must include a description of the charter school's admission policies and procedures:

(1) The admission policies and procedures must reflect compliance with all federal and state laws and constitutional provisions prohibiting discrimination on the basis of disability, race, creed, color, gender, national origin, religion, ancestry, or need for special education services.

(2) The admission policies and procedures must provide that, subject to space limitations, the charter school admits all children who are eligible to attend public school in the school district where the charter school is operating. For schools within the South Carolina Public Charter School District, the enrollment is open to all children who are eligible to attend public school in the state. If the number of



applications exceeds the capacity of a program, class, grade level, or building, students must be accepted by lot, as specified in federal or state guidance. There is no appeal to the local school board of trustees.

(3) The policies and procedures must not limit or deny admission or show preference to any individual group; however, priority, which may not exceed twenty percent of the enrollment of the charter school, may be given to

- (a) a sibling of a pupil already enrolled or previously enrolled,
- (b) children of charter school employees, and
- (c) children of the charter school committee.

(4) Admission priority must be given to all students enrolled in a school undergoing a conversion.

(5) The policies and procedures must include provisions to grant or deny permission for students to attend the charter school if they reside in a school district other than the one where the charter school is located. This section is not applicable to schools authorized by the South Carolina Public Charter School District.

(a) In-district students will be given priority.

(b) Out-of-district student enrollment must not exceed 20 percent of the total enrollment of the charter school without the approval of the receiving district board of trustees. The sending district must be notified immediately of the transferring students. Out-of-district students must be considered on the basis of the order in which their applications are received.

(c) If the 20 percent of the out-of-district students are from one school district, then the sending district must concur with any additional students' transferring from that district to attend the charter school.

(6) If a charter school denies admission to a student for reasons other than the results of a lottery, the student may appeal the denial to the sponsor. The decision will be binding on the student and the charter school.

### (C) Support for Formation of a Charter School

The application must include evidence that an adequate number of parents, teachers, pupils, or any combination of them support the formation of the charter school:

(1) The charter committee must include at least one teacher.

(2) The application must include documentation of support of parents, teachers, pupils, or any combination of them that demonstrates that the school would likely meet enrollment expectations. A list of prospective or tentatively enrolled students or prospective employees is not required. The application must set forth the anticipated enrollment for the school at each grade level.

(3) Evidence of the interest level of parents, teachers, pupils, or any combination of them must be provided in the application and may include, but not be limited to, documentation of attendance and support at community meetings and survey results.

(4) If the social situation of the proposed school's targeted population precludes establishing parental support, evidence should demonstrate support from community groups and agencies, including letters from these entities that specify the level of their commitment to the school.

(5) In the case of a proposal to convert a school, the application must also include evidence that two-thirds of the faculty and instructional staff voted to support the filing of the application and evidence that two-thirds of the voting parents or legal guardians voted to support the filing of the application. Parents or guardians shall have one vote for each of their children enrolled in the school (i.e., each student may be represented by only one vote). All parents or legal guardians of students enrolled in the school must be given the opportunity to vote.

### (D) Educational Program, Goals, Objectives, Pupil Achievement Standards, and Curriculum

The charter school's educational program, goals, objectives, pupil achievement standards, and curriculum must be clearly described in the application and must meet or exceed any student academic standards adopted by the school district in which the charter school is located. The application must demonstrate that the educational program is designed to enable each student to achieve these standards.

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(1) The goals and objectives must be clearly stated and must provide enough detail to indicate specific outcomes.

(2) The student population must be identified by grade level, unique educational needs, and projected enrollment. A converted charter school must offer the same grades, or nongraded education appropriate for the same ages and education levels of pupils, as offered by the school immediately before conversion and may also provide additional grades and further educational offerings.

(3) The educational goals must reflect the school's mission statement.

(4) Strategies to accomplish the educational goals must be included.

(5) The school calendar must be at least 180 instructional days.

(6) Academic standards must identify what students will achieve at each grade level and must meet or exceed the South Carolina curriculum standards, as adopted by the State Board of Education. A correlation or other documentation must be included or process identified to ensure that the school will provide an instructional program that meets or exceeds the academic standards.

(7) If the charter school plans to offer the South Carolina State High School Diploma, the application must set forth the method for meeting the state requirements for the High School Diploma, including, but not limited to, course unit requirements, seat time for Carnegie Units, as applicable, and passage of the required examinations.

(8) Provisions must be included for determining if all students are achieving or attaining the standards, including the methods by which student performance information will be gathered and monitored.

(9) The application must include an explanation as to how the school will comply with the Individuals with Disabilities Education Act, Section 504 of the Rehabilitation Act, and the Americans with Disabilities Act.

### (E) Student Assessment

The application must include a description of the charter school's plan for evaluating pupil achievement and progress toward accomplishment of the school's achievement standards. The school's evaluation plan must include state-mandated assessments and other assessments as well as the timeline for meeting these standards and the procedures to be taken if pupil achievement falls below the standards.

(1) Methods for evaluating pupil achievement at each grade level must be specified. These methods must include but should not be limited to the state assessments.

(2) The timeline must identify the expected yearly progress toward meeting the school's long-term performance goals. The expected yearly progress must meet or exceed the expectation of adequate yearly progress as established in the No Child Left Behind Act.

(3) Provisions must be included to address the needs of students who do not perform at acceptable levels of proficiency in the statewide assessment program.

### (F) Budget and Accounting System

The application must include a plan for the charter school that is economically sound and in compliance with state and federal requirements:

(1) A budget for the first five years of the charter must be included. The charter school must use the same budget codes as are required of school districts. The budget must be based on documented State Department of Education estimated revenues in accordance with the allocations in S.C. Code Ann. § 59-40-140(A)–(C). If the budget includes funds acquired through grants, the application must present evidence that the funds, including federal public charter school start-up grants, are likely to be received, and the terms of the projected grants must be explained. Anticipated expenditures must include all costs associated with initial implementation and continued operation, including but not limited to instructional and support costs for:

(a) salaries,

(b) employee benefits,

(c) purchased services (includes insurance and transportation),

(d) supplies and materials (includes noncapital equipment), and

(e) capital outlay.

(2) The application must include a description of the annual audit of the financial and administrative operations of the charter school, including evidence that the charter school will adhere to the accounting, auditing, and reporting procedures and requirements that are applied to public schools operating in South Carolina. Accounting, auditing, and reporting requirements must be in compliance with the principles set forth in the following publications, published annually by the Office of Finance:

- (a) *Single Audit Guide*,
- (b) *Financial Accounting Handbook*, and
- (c) *Funding Manual*.

(3) The application must include documentation regarding the pupil accounting system, including evidence that the charter school will adhere to the procedures and regulations that are applied to public schools operating in South Carolina. Pupil accounting and reporting requirements must be in compliance with the *S.C. Pupil Accounting Manual* and the *S.C. Student Accountability Manual*, published by the State Department of Education.

(4) The application must include documentation of any negotiated services provided by the school district, including but not limited to financial accounting, payroll services, food services, custodial services, maintenance, curriculum, library and media services, and warehousing.

#### (G) Governance and Operation

The application must include a description of the governance and operation of the charter school:

(1) The charter school must be organized as a South Carolina non-profit corporation and the application must include a copy of the non-profit corporation's articles of incorporation and bylaws.

(2) The governing board must be elected annually by employees of the charter school and all parents or guardians of enrolled students.

(3) The governing board must assume the following responsibilities:

- (a) employing and contracting with teachers and nonteaching employees;
- (b) ensuring that teachers, whether certified or noncertified, undergo the background checks and other investigations required for certified teachers, as provided by law, before they may teach in the charter school;
- (c) contracting for other services;
- (d) developing pay scales, performance criteria, and discharging policies for its employees;
- (e) deciding all other matters related to the operation of the charter school, including budgeting, curriculum, and operating procedures; and
- (f) ensuring that the charter school will adhere to the same health, safety, civil rights, and disability rights requirements as are applied to all public schools operating in the same school district.

(4) The application must include a description of the administrative structure of the charter school, including the roles and responsibilities of each administrative staff member.

(5) Evidence of the nature and extent of parental, community, and professional educator involvement in the governance and operation of the school must be provided.

(6) Evidence must be provided that the charter school and its governing body will comply with the Freedom of Information Act. Such evidence may include the bylaws of the nonprofit corporation, which must be established prior to application.

#### (H) Administrative and Teaching Staff

The charter school must employ administrators and teachers in a manner consistent with the Charter Schools Act:

(1) At least one member of the administrative staff must hold current South Carolina certification in administration or have at least one year of experience in the field of school-based administration. The application must provide evidence that the qualifications of at least one administrator will meet this requirement.

(2) A newly created charter school may hire noncertified teachers not to exceed 25 percent of its faculty.

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(3) A converted charter school may hire noncertified teachers not to exceed of 10 percent of its faculty.

(4) A teacher of a core academic area (English/language arts, mathematics, science, or social studies) must be certified in that area or must hold a baccalaureate or graduate degree in that subject. Teachers with elementary certification may teach in any academic area and in any grades allowable by the status of their certification.

(5) Part-time noncertified teachers must be considered pro rata in calculating staff percentages based on the hours which they are expected to teach.

(6) A noncertified teacher must be appropriately qualified for the subject matter taught, must have completed at least one year of study at an accredited college or university, and must meet the qualifications outlined in S.C. Code Ann. § 59-25-115.

(7) A certified teacher must hold current certification by the State of South Carolina to teach in a public elementary, middle, or secondary school.

### (I) Racial Composition

The application must describe how the charter school intends to ensure that the enrollment of the school is similar to the racial composition of the school district or to the targeted student population the charter school proposes to serve and must also provide assurance that the school complies with any school district desegregation plan or order in effect:

(1) The application must demonstrate timely, fair, and realistic policies and procedures for recruiting, registering, and admitting students that reflect the racial composition of the school district or the targeted school population.

(2) The proposed procedures and policies must reflect an understanding of the racial composition of the district and the targeted student population.

(3) To ensure compliance with a desegregation plan or order, the charter school applicant should take the following steps and provide documentation that these steps were taken in its application:

(a) request and receive a letter from the district indicating whether the school will be subject to any desegregation plan or order;

(b) secure a copy of the desegregation plan or order if the school is subject to such;

(c) determine and demonstrate that the charter school's policies and procedures are in compliance with the desegregation plan or order;

(d) request and receive a letter from the district that indicates whether the charter school's proposed policies and procedures are in compliance with any desegregation plan or order in effect in the district or whether clarification must be received from the Office for Civil Rights.

### (J) Transportation

The application must include a description of how the charter school intends to meet the transportation needs of its pupils:

(1) If the charter school will provide transportation by school bus, the application must include a plan that complies with the state requirements for drivers and training and the state safety requirements for school buses.

(2) If the lack of transportation is preventing a child from attending school, the charter school must provide or facilitate transportation for that student.

(3) If the charter school intends to contract with the district or a third party for transportation services, a description of those services and a proposed contract must be provided in the application.

(4) A charter school is not required to provide or facilitate transportation for out-of-district students.

## (K) Facilities and Equipment

The application must include a description of the building, facilities, and equipment and an explanation as to how they will be obtained:

## (1) Facilities Identified in Application

(a) If a facility suitable for use by the charter school is identified at the time of application, the application must provide the following information with regard to the facility that the charter school intends to occupy:

- (i) the address of the facility;
- (ii) a description of the facility;
- (iii) a floor plan of the facility, including a notation of its size in square footage;
- (iv) the name and address of the owner of the facility; and
- (v) a copy of the proposed lease or rental agreement if the facility will be leased or rented.

(b) If the facility that the charter school will occupy is being used as a public school at the time of application, the application must specify the name and location of that school and must include documentation setting forth the specific days and times during which the charter school is authorized to use that facility.

(c) The application must either demonstrate that the proposed facility is in compliance with requirements set forth in the South Carolina School Facility Planning and Construction Guide for charter school occupancy or must provide a description of that facility and must demonstrate that it will meet the requirements:

(i) A certificate of occupancy or a letter from the Office of School Facilities stating that the facility meets the appropriate codes is adequate to show compliance with this standard with regard to school facilities.

(ii) If a certificate of occupancy is not issued or cannot be obtained at the time of application, the application must provide evidence that the charter school committee is working with an architect and/or the Office of School Facilities to correct any deficiencies in the facility.

## (2) Facilities Not Identified in Application

If the charter school has not identified a suitable facility, the application must specify a plan for obtaining such a facility and must include

- (a) a description of the facility needs,
- (b) a statement as to whether an existing facility will be remodeled or a new facility will be built, and
- (c) a schedule for completing or obtaining a suitable facility and, if applicable, a description of and timeline for any plan to raise funds for completing or obtaining the facility.

(3) The application must include a description of the equipment that will be used to support the proposed curriculum and an explanation as to how the equipment will be obtained.

## (L) Employee Relations

The application must explain the relationship that will exist between the charter school and its employees, including evaluation procedures:

(1) The application must include a description of the process that will be used to advertise for, select, and employ instructional staff and other employees.

(2) The procedure for the evaluation of teachers of the charter school must be outlined in the application.

(a) The charter school may choose to use the ADEPT (Assisting, Developing, and Evaluating Professional Teaching) program. If ADEPT is to be used, the school must meet all requirements of the program.

(b) If the charter school selects another method of evaluation, that method must be explained with adequate detail. Teachers with Initial Teaching Certificates in those schools can not advance to a Professional Teaching Certificate.

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(3) The application must explain how the terms and conditions of employment will be addressed with affected employees.

### (M) Grievance and Termination Procedures

The charter school must have a reasonable grievance and termination procedure for its employees:

(1) The charter school may, with agreement from the sponsor, adopt the procedures for the employment and dismissal of teachers outlined in S.C. Code Ann. Section 59-25-410 et seq. (1990).

(2) If the charter school does not adopt procedures for the employment and dismissal of teachers outlined in S.C. Code Ann. Section 59-25-410 et seq. (1990), the charter school must establish employment and termination procedures that provide for notice and a right to a hearing before the governing board.

(3) The charter school application must include grievance or termination procedures for paraprofessionals and other staff.

(4) Teachers and other staff members who are employed at a public school that converts and who desire to continue to teach or work at the converted school may do so but will remain employees of the local school district with the same compensation and benefits including any future increases.

### (N) Student Conduct, Rights, and Responsibilities

The charter school application must include a policy governing student conduct, student rights and responsibilities, and student discipline standards and procedures:

(1) The charter school may adopt the district's policy on student conduct and discipline.

(2) If the charter school does not adopt the district's policy on student conduct and discipline, the charter school application must include a policy that sets forth clear expectations for student conduct.

(3) The policy must set forth disciplinary actions to be taken by the administration for breaches of the student conduct policy.

(4) The application must set forth an appeal process for students recommended for expulsion that includes a right to appeal a decision to the charter school board.

(5) The application must set forth an assurance that the charter school will comply with S.C. Code Ann. § 59-63-235 (Supp. 2001), which provides for the expulsion of any student who brings a firearm to school.

(6) The application must include an assurance that the charter school will comply with the Family Education Rights and Privacy Act (20 U.S.C. § 1232).

(7) The application must contain the explanation of the policies with regard to student conduct, rights, and responsibilities that will be given to parents and students at the beginning of the school year.

### (O) Indemnification

The charter school must assume the liability for the activities of the charter school and must agree to indemnify and hold harmless the school district, its servants, agents, and employees from any and all liability, damage, expense, causes of action, suits, claims, or judgments arising from injury to persons or property or otherwise that arises out of the act, failure to act, or negligence of the charter school, its agents and employees, in connection with or arising out of the activity of the charter school.

### (P) Insurance

The application must include a description of the types and amounts of insurance coverage to be obtained by the charter school. The application must address, but is not limited to, the following types of insurance: workers' compensation, liability, property, indemnity, and automotive.

(1) The application must include a description of workers' compensation insurance and amounts and a statement from a South Carolina licensed insurance company or the state insurance reserve fund setting out the charter school applicant's ability to secure the insurance and an estimate of the cost of the insurance.

(2) The application must include a description of liability insurance and the amounts to be obtained by the charter school and a statement from a South Carolina licensed insurance company or the state insurance reserve fund setting out the charter school applicant's ability to secure the insurance and an estimate of the cost of the insurance. The minimum policy must cover the limits of the South Carolina Tort Claims Act (S.C. Code Ann. § 15-78-120 (Supp. 2001)).

(3) The application must include a description of the insurance to cover loss to the school building and contents for fire and theft and a statement from a South Carolina licensed insurance company or the state insurance reserve fund setting out the charter school applicant's ability to secure the insurance and an estimate of the cost of the insurance.

(4) The application must include a description of indemnity insurance against civil and criminal liability for the charter school to protect the sponsor, the members of the board of the sponsor, and the employees of a sponsor acting in their official capacity with respect to all activities related to the charter school. A statement from a South Carolina licensed insurance company or the state insurance reserve fund setting out the charter school applicant's ability to secure the insurance and an estimate of the cost of the insurance must also be included.

(5) The application must include a description of automobile insurance, both property and liability insurance, and a statement from a South Carolina licensed insurance company or the state insurance reserve fund setting out the charter school applicant's ability to secure the insurance and an estimate of the cost of the insurance.

#### IV. VIRTUAL CHARTER SCHOOLS

(A) Definition: a virtual charter school is a charter school whereby students are taught primarily through online methods; however, at least 25 percent of the instruction in core areas as defined in Section IV(E)(1) must be through regular instructional opportunities. Regular instructional opportunities may include, but are not limited to, the opportunities outlined in Section IV(E)(2).

(B) The following additional information must be submitted to the Advisory Committee with the charter application:

- (1) List of currently developed courses that are ready for curriculum alignment;
- (2) Access to one course per level that can be previewed by South Carolina Department of Education (SCDE) to assess depth of work necessary for curriculum alignment;
- (3) Description of how the proposed charter will comply with the 25 percent real time requirement;
- (4) A timeline of how curriculum development will be completed and then approved by the SCDE;
- (5) A description of how much teacher interaction students will receive within the online instruction;
- (6) A description of the portal used and how it works;
- (7) A description of how the applicant plans to comply with the teacher requirements in S.C. Code Ann. Section 59-40-50.

#### (C) Curriculum

(1) All courses in core areas for which there are state-adopted curriculum standards must be reviewed to determine whether the courses meet content and grade specific standards, and approved by the SCDE prior to offering the course.

(2) Review by the SCDE

After the approval or conditional approval of a charter by the sponsor, the virtual charter school may submit courses for approval by the SCDE.

(a) The submittal must be done no later than six months prior to the proposed start to the school year and in the format required by the SCDE.

(b) The virtual charter school must provide SCDE online access to all courses that are submitted for review.

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(c) The virtual charter must provide the SCDE copies of or links to other materials that will be used to cover content standards.

(d) If the virtual charter is also using textbooks to teach the courses, the virtual charter must, if requested, provide a copy or excerpts of the text to the SCDE for the review process.

### (D) Additional Program Requirements

The program must provide the following:

(1) Each course must be taught by a teacher meeting the requirements of S.C. Code Ann. Section 59-40-50;

(2) Ensure that a parent or legal guardian verifies the number of hours of educational activities completed by the student each year;

(3) Provide for frequent, ongoing monitoring of an individual student's program to verify each student is participating in the program;

(4) Include proctored assessments for core subjects per semester that are graded or evaluated by the teacher;

(5) Conduct at least bi-weekly parent-teacher conferences in person or by telephone;

(6) Provide for a method to verify student attendance;

(7) Provide for verification of ongoing student progress and performance in each course as documented by assessments and examples of coursework.

### (E) Regular Instructional Opportunities

(1) The charter school must provide regular instructional opportunities in real time that are directly related to the school's curricular objectives. Core academic instruction includes instruction in English, reading or language arts, mathematics, science, foreign languages, civics and government, economics, arts, history, and geography.

(2) Regular instructional opportunities include, but are not limited to, the following:

(a) meetings with teachers;

(b) educational field trips and outings;

(c) virtual field trips that are in real time attended by other charter school students;

(d) virtual conferencing sessions;

(e) offline work or projects assigned by the teacher of record.

## V. CONDITIONAL CHARTERS

The local school board may grant a conditional charter, instead of a full charter, to an applicant whose application meets the standards as determined by the Advisory Committee only if one or more of the following conditions exists: a charter school has not yet secured its space and been issued a certificate of occupancy by the Office of School Facilities, secured its equipment, facilities, and/or personnel.

The conditional approval must be in writing and outline the specific conditions that must be met for approval and must include the specific date by which the conditions need to be met in order to secure approval. The local school board must make a determination as to whether the charter applicant has met the conditions of the conditional approval on or before the date specified in the conditional approval. Failure to make a ruling by the date outlined in the conditional charter shall be deemed approved.

## VI. ADVERSE IMPACT ON STUDENTS

A local school board of trustees may deny an application if the charter school would adversely affect the other students in the district.



(A) The local school board of trustees must demonstrate adverse impact on students. The impact must be specific and must have a negative affect on students. If the local school board of trustees finds that the charter school would adversely affect other students of the district, the written explanation of the reasons for denial required by Section 59-40-70(C) must describe detrimental effects upon other students of the district.

(B) If the district is claiming an adverse impact based upon the redirection of funding to the charter school, the district must demonstrate that the funds being redirected to the charter school will have a direct negative impact on students.

(1) The district must show options it has considered in an effort to reduce the adverse financial impact of the charter school.

(2) The district has considered the net fiscal impact of the charter school, including the fiscal benefits that the charter school may bring to the district.

## VII. GUIDELINES

The South Carolina Department of Education may issue guidelines to assist charter schools in complying with federal legislation, including, but not limited to, No Child Left Behind and the Individuals with Disabilities Education Act.

### **Fiscal Impact Statement:**

None.

### **Statement of Rationale:**

Revisions to the Regulation Procedures and Standards for Review of Charter School Applications needs to be amended to comply with changes made to the law.

Document No. 4027

## **STATE BOARD OF EDUCATION**

### CHAPTER 43

Statutory Authority: 1976 Code Sections 59-5-60 and 59-24-40

43-165.1. Program for Assisting, Developing, and Evaluating Principal Performance (PADEPP)

### **Synopsis:**

This regulation needs to be revised to remove outdated verbiage, update and clarify current responsibilities and procedures of school districts and the South Carolina Department of Education, reflect the revisions to the national Interstate School Leaders Licensure Consortium (ISLLC) standards, and allow for general collection of principals' demographic data for purposes of pre-service and in-service of principals.

### Section-by-Section Discussion

Section I. PURPOSE. Changes to this section update terminology (e.g., "state" Department of Education is now "South Carolina" Department of Education). Added to this section is an emphasis that principal evaluations are not only used for reemployment decisions but also to assist districts and the Office of School Leadership in developing principals' leadership skills.

Section II. DEFINITIONS FOR THE PURPOSES OF THIS EVALUATION PROGRAM. Terminology (e.g., "Leadership Academy" is now "Office of School Leadership") was updated. Definitions have been clarified according to what our focus groups (representing superintendents, human resources directors, principals, university education professors, SCDE staff) told us was unclear in the original regulation. Some

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terms (such as interim and experienced) were clarified using language from the statute. Under “C”, the alternative evaluation process was clarified, according to current statute and practice by the SCDE since 2001. Under “D”, statute states that principals must be evaluated at least every three years.

Section III. PARTICIPATION. Some districts have requested that their principals (who are new to South Carolina but have out-of-state experience) be allowed to participate in the South Carolina Principal Induction Program, in order to become familiar with South Carolina procedures. In this section, district personnel asked that we clarify expectations that supervisors of principals conduct mid-year and end-of-year conferences with principals. These district personnel (superintendents and human resources directors) recommended that interim principals not enter the formal evaluation cycle until their second year (after the Principal Induction Program is completed). Regarding experienced principals, the focus groups asked that emphasis be given to providing informal feedback annually, with at least mid- and end-of-year conferences, even though formal evaluations are required only every three years; the current PADEPP regulation and PADEPP training of supervisors currently emphasize that feedback be given each year. The superintendents and human resources directors recommended that experienced principals new to our state be evaluated the first year of their principalship in South Carolina.

Section IV. PERFORMANCE STANDARDS AND CRITERIA. The revised regulation removes the performance standards and criteria from the regulation. The wording in the revised regulation mirrors the language in the Assisting, Developing, and Evaluating Professional Teaching (ADEPT) regulation.

The South Carolina standards are based upon the ISLLC (Interstate School Leaders Licensure Consortium) standards which were revised nationally in January 2008. Even though substantial changes were not made to the 1996 ISLLC standards, minor changes will be recommended in the near future to the South Carolina Performance Standards' Criteria (e.g., to reflect the new EEDA requirements passed by the South Carolina General Assembly). Therefore, the South Carolina Performance Standards and Criteria will be placed in PADEPP Implementation Guidelines; these implementation guidelines, as well as any changes to these guidelines in the future, would require approval by the State Board of Education.

Section V. FORMAL EVALUATION PROCESS. The revised wording was recommended by the focus group of district, university, and SCDE personnel. Procedures were clarified.

### Section VI. DISTRICT RESPONSIBILITIES

Section VII. SOUTH CAROLINA DEPARTMENT OF EDUCATION RESPONSIBILITIES. The last two sections (VI and VII) clarify the responsibilities of both the district and the South Carolina Department of Education. All wording was moved from other sections of the original regulation, with one exception. In VI.E., the words “and required principal evaluation data” are new to the regulation. In order to prepare highly qualified principals in the future, the South Carolina Department of Education may need to collect general performance information from districts in order to give feedback to South Carolina universities' principal preparation programs.

Notice of Drafting for the proposed amendments was published in the State Register on June 27, 2008.

### **Instructions:**

The following sections of Regulation 43-165.1 are modified as provided below. All other items and sections remain unchanged.

**Text:**

43-165.1. Program for Assisting, Developing, and Evaluating Principal Performance (PADEPP).

### I. PURPOSE

The State Board of Education, through the South Carolina Department of Education, is required to adopt statewide performance standards and criteria that shall serve as a foundation for all processes used for assisting, developing, and evaluating principals employed in the school districts of this state. School districts shall use the standards and procedures adopted by the State Board of Education for the purposes of conducting formal or informal evaluations and guiding the professional development of principals. Any principal whose performance on the formal evaluation is determined to be unsatisfactory must be formally evaluated the following year. Districts are to consider evaluation results in making reemployment decisions. However, satisfactory performance on an evaluation does not guarantee reemployment as a principal.

The South Carolina Department of Education shall ensure the implementation of the principal evaluation in the school districts.

Principals must be evaluated using the Performance Standards and Criteria for Principal Evaluation adopted by the State Board of Education. Additional performance standards and criteria may be established by the superintendent. As required by S.C. Code Ann. Section 59-24-30, the principal's annual professional development plan shall be established on the basis of the PADEPP performance standards and criteria and the school's renewal plan.

### II. DEFINITIONS FOR THE PURPOSES OF THIS EVALUATION PROGRAM

A. **PRINCIPAL:** A principal is the chief administrative head or director of an elementary, middle, or secondary school or of a vocational, technical, special education, or alternative school. Induction principals are those serving for the first time as building-level principals. These principals are considered interim until the requirements of the Principal Induction Program (PIP) are completed. Experienced principals are those principals with one or more years of in-state or out-of-state experience as a principal.

B. **EVALUATOR:** The evaluator is the district superintendent and/or the superintendent's designee. All evaluators must have successfully completed the Office of School Leadership's (OSL) Program for Assisting, Developing, and Evaluating Principal Performance (PADEPP) training before evaluating principals.

C. **EVALUATION INSTRUMENT:** The evaluation instrument developed by the South Carolina Department of Education is based upon the PADEPP Performance Standards and Criteria and is available from the Office of School Leadership. In lieu of the state instrument, districts may request permission to use an alternative evaluation process that meets state requirements and national standards. This instrument must be approved by the South Carolina Department of Education and the State Board of Education.

D. **EVALUATION CYCLE:** The evaluation cycle shall be consistent with the school year as defined by law. At a minimum, principals shall be informally evaluated each year. Principals shall be formally evaluated at least once every three years.

### III. PARTICIPATION

#### A. FIRST-YEAR PRINCIPALS

(1) First-year principals shall participate in an induction program as provided for in State Board of Education Regulation 43-167, "Principal Induction Program." Districts may elect to send principals with out-of-state experience to the Principal Induction Program in order to introduce them to South Carolina statutes, regulations, and performance standards.

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(2) The superintendent or his or her designee shall provide the first-year principal with written and oral feedback relative to each performance standard and criterion. It is recommended that principals receive this feedback at least at mid-year and end-of-year conferences.

(3) The South Carolina Department of Education shall provide superintendents and their designees with training designed to enable them to support and evaluate their first-year principals. Specifically, the training will ensure that participants have the knowledge and skills necessary to collect and document data relative to a principal's performance, analyze the data to identify strengths and weaknesses, provide feedback to the principal in terms of the PADEPP Performance Standards, and counsel, coach, and assist the principal to improve effectiveness. Additionally, the training will ensure that participants are prepared to formally evaluate the principal in a valid, reliable manner and to make a summative judgment regarding the principal's performance.

(4) The superintendent or his or her designee will observe, collect relevant data, and consult with the first-year principal on a regular and consistent basis.

(5) The principal will enter the formal evaluation cycle in his or her second year.

### B. EXPERIENCED PRINCIPALS

(1) The superintendent or his or her designee shall formally evaluate experienced principals at least once every three years. The formal evaluation shall address each of the nine performance standards and accompanying criteria.

(2) The superintendent or his or her designee shall conduct informal evaluations and provide feedback to the principal on an annual basis. It is recommended that principals receive this feedback at least at mid-year and end-of-year conferences.

(3) An experienced principal new to South Carolina shall be formally evaluated during his or her first year in the state.

## IV. PERFORMANCE STANDARDS AND CRITERIA

Principal preparation programs and school districts must address, but are not limited to, the performance standards for the Program for Assisting, Developing, and Evaluating Principal Performance (PADEPP), as specified in the State Board of Education's PADEPP implementation guidelines.

## V. FORMAL EVALUATION PROCESS

A. The formal evaluation of each principal shall consist of both formative and summative phases.

(1) The formative phase shall begin with an initial review of the evaluation instrument by the evaluator with the principal. Regular conferences shall be held to discuss the principal's progress and shall include an analysis of the data collected during the year.

(2) The summative phase shall provide for evaluative conclusions regarding the principal's performance based upon the data collected in the manner specified by the evaluation instrument. Upon completion of the evaluation, the evaluator will meet with the principal to discuss the findings in terms of each of the PADEPP Performance Standards, as well as the overall results. At the conclusion of the meeting, the evaluator and the principal shall sign the evaluation form, and a copy shall be given to the principal.

B. After reviewing the overall results of the formal evaluation, the principal and evaluator shall establish the principal's annual professional development plan on the basis of the identified strengths and weaknesses, as well as the school's renewal plan.

C. Each principal has the right to respond in writing to the completed principal evaluation instrument. This written response must be submitted to the evaluator within ten working days of the summative conference.

D. All appeals shall follow local school district policies and procedures governing the local appeal process.

## VI. DISTRICT RESPONSIBILITIES

A. Each school district shall ensure that principals receive awareness training that includes

(1) the PADEPP Performance Standards and Criteria for Principal Evaluation,

(2) the PADEPP principal evaluation instrument, and

(3) Regulation 43-165.1, "Program for Assisting, Developing, and Evaluating Principal Performance (PADEPP)."

B. Each school district shall ensure that the district superintendent and the superintendent's designee(s) are trained as evaluators of principals.

C. Each school district shall designate one individual to be trained as a district coordinator for PADEPP. This coordinator shall be responsible for the administration of the evaluation program consistent with this regulation.

D. Each school district shall maintain principal evaluation data and shall ensure the confidentiality of the evaluation results in accordance with the Freedom of Information Act.

E. Each school district shall submit annual assurances and required principal evaluation data to the South Carolina Department of Education indicating compliance with this regulation and PADEPP implementation guidelines.

## VII. SOUTH CAROLINA DEPARTMENT OF EDUCATION RESPONSIBILITIES

A. The South Carolina Department of Education shall ensure that the PADEPP is appropriately implemented by each school district in accordance with this regulation and PADEPP implementation guidelines.

B. The South Carolina Department of Education shall collect from school districts

(1) required principal evaluation data to determine trends and inform decisions concerning educational leadership preparation and professional development, and

(2) annual assurances that the Program for Assisting, Developing, and Evaluating Principal Performance is being appropriately administered in accordance with this regulation and the law governing the evaluation of principals.

C. The South Carolina Department of Education shall provide school districts with ongoing technical assistance in the form of training, consultation, and advisement.

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### **Fiscal Impact Statement:**

None.

### **Statement of Rationale:**

The regulation is required by statute to adopt statewide performance standards and criteria that will serve as a foundation for all processes used for assisting, developing, and evaluating principals employed in the state's school districts.

Document No. 4049  
**STATE BOARD OF EDUCATION**  
CHAPTER 43

Statutory Authority: 1976 Code Sections 59-5-60 and 59-20-60

43-260. Use and Dissemination of Test Results

### **Synopsis:**

Section by Section

- |           |  |
|-----------|--|
| Section 1 | Updates reference to the Education Finance Act. Deletes the reference to the Basic Skills Assessment Program legislation of 1978 (BSAP). Updates reference to the Education Accountability Act of 1998 (EAA), S.C. Code Ann. § 59-18-310 (Supp. 2008). |
| Section 2 | Changing wording of agency to South Carolina Department of Education and deleting the word State.  |

Notice of Drafting for the proposed amendments was published in the State Register on October 24, 2008.

### **Instructions:**

The following sections of Regulation 43-260 is modified as provided below. All other items and sections remain unchanged.

### **Text:**

43-260. Use and Dissemination of Test Results.

1. The participation of local school districts in the statewide testing program is required under Section 59-20-60(7)(c) of the South Carolina Education Finance Act and the South Carolina Education Accountability Act of 1998 (Supp. 2008).
2. The South Carolina Department of Education will report statewide and school district test results in conjunction with such demographic and socio-economic data as may be necessary for accurate and meaningful interpretation.
3. Test data for individuals shall be released only in a manner that is consistent with the provisions of Section 438 (Privacy Rights of Parents and Students) of the General Education Provisions Act (Title IV of Public Law 90-247, as amended) and any other relevant legislation.

4. The State Superintendent of Education is authorized to develop and implement such administrative procedures as he/she may deem necessary and appropriate for the purposes of fulfilling the intent of these policies.

**Fiscal Impact Statement:**

There will be no increased costs to the state or its political subdivisions.

**Statement of Rationale:**

Revisions to the Use and Dissemination of Test Results will delete references to BSAP and language will be added to conform with amendments to the EAA.

Document No. 3225

**DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL**

**CHAPTER 61**

Statutory Authority: 1976 Code Sections 44-56-10 et seq.

61-79. Hazardous Waste Management Regulations

**Synopsis:**

The Department adopted amendments to Regulation 61-79 promulgated by the US Environmental Protection Agency (US EPA) between July 1, 2006 and June 30, 2007. Adoption of federal amendments to 40 CFR 260 and 261 to R.61-79 will conform with the federal equivalent.

The federal regulation amendments affect the recycling of Cathode Ray Tubes. This rule was published at 71 FR 42928 on July 28, 2006. These amendments will be less stringent than the previous federal equivalent and will modify the current state regulations. Adoption by states is optional. Although the changes in the regulations are federal initiatives, legislative review and a fiscal impact statement are required because, while the changes will not make South Carolina less stringent than federal initiatives, the changes will be less stringent than current South Carolina regulations.

A Notice of Drafting and Notice of Proposed Regulation were published in the S.C. State Register providing notice of opportunity for public input. No public comments were received during the public comment periods or at the public hearing conducted by the Board of Health and Environmental Control as a result of these notices.

**Discussion of Revisions:**

Revisions are made to conform R.61-79 to reflect modified federal amendments.

These revisions provide for modification of the Universal Waste program to streamline the management requirements for recycling of used cathode ray tubes (CRTs) and glass removed from CRTs. The amendments exclude these materials from the RCRA definition of solid waste if certain conditions are met. This rule is intended to encourage handling of CRTs as commodities rather than as wastes and to promote the recycling of CRTs and reuse of used CRT glass.

**Section Citation and Explanation of change**

260.10 - Add the following definitions which relate to the recycling and handling of Cathode Ray Tubes in alphabetical order.

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Add "Cathode Ray Tube"

Add "CRT collector"

Add "CRT glass manufacturer"

Add "CRT processing"

261.4(a)(22) - Remove the reserved status at this citation and replace it with new section changes on the handling of Cathode Ray Tubes.

Before 261.38 add a new subpart: Title E - Exclusions/Exemptions

261.39 - Add new title and text re: Conditional Exclusion for Used, Broken Cathode Ray Tubes (CRTs) and Processed CRT Glass Undergoing Recycling.

261.40 - Add new title and introductory paragraph text re: Conditional Exclusion for Used, Intact Cathode Ray Tubes (CRTs) exported for recycling.

261.41 - Add new title and text re: Notification and Recordkeeping for Used, Intact Cathode Ray Tubes (CRTs) exported for reuse.

### **Instructions:**

Amend R.61-79 pursuant to each individual instruction provided below with the text of the regulations.

### **Text:**

The following sections have been added, deleted, or revised. All other sections of R.61-79 will remain.

### **260.10**

#### **Add the following definitions in alphabetical order:**

"Cathode Ray Tube" or "CRT" means a vacuum tube, composed primarily of glass, which is the visual or video display component of an electronic device. A used, intact CRT means a CRT whose vacuum has not been released. A used, broken CRT means glass removed from its housing or casing whose vacuum has been released.

"CRT collector" means a person who receives used, intact CRTs for recycling, repair, resale, or donation.

"CRT glass manufacturer" means an operation or part of an operation that uses a furnace to manufacture CRT glass.

"CRT processing" means conducting all of the following activities:

- (1) Receiving broken or intact CRTs; and
- (2) Intentionally breaking intact CRTs or further breaking or separating broken CRTs; and
- (3) Sorting or otherwise managing glass removed from CRT monitors

#### **261.4(a)(22) Remove reserved status and add new title and text to read:**

(22) Used Cathode Ray Tubes (CRTs)

(i) Used, intact CRTs as defined in Sec. 260.10 of this chapter are not solid wastes within the United States unless they are disposed, or unless they are speculatively accumulated as defined in 261.1(c)(8) by CRT collectors or glass processors.



(ii) Used, intact CRTs as defined in Sec. 260.10 of this chapter are not solid wastes when exported for recycling provided that they meet the requirements of Sec. 261.40.

(iii) Used, broken CRTs as defined in Sec. 260.10 of this chapter are not solid wastes provided that they meet the requirements of 261.39.

(iv) Glass removed from CRTs is not a solid waste provided that it meets the requirements of 261.39(c).

**Before 261.38 add new Subpart E to read:**

Subpart E--Exclusions/Exemptions

**At 261.39 add new title and text to read:**

261.39 Conditional Exclusion for Used, Broken Cathode Ray Tubes (CRTs) and Processed CRT Glass Undergoing Recycling.

261.39 Used, broken CRTs are not solid wastes if they meet the following conditions:

(a) Prior to processing: These materials are not solid wastes if they are destined for recycling and if they meet the following requirements:

(1) Storage. The broken CRTs must be either:

(i) Stored in a building with a roof, floor, and walls, or

(ii) Placed in a container (i.e., a package or a vehicle) that is constructed, filled, and closed to minimize releases to the environment of CRT glass (including fine solid materials).

(2) Labeling. Each container in which the used, broken CRT is contained must be labeled or marked clearly with one of the following phrases: "Used Cathode Ray Tube(s)-contains leaded glass" or "Leaded glass from televisions or computers." It must also be labeled: "Do not mix with other glass materials."

(3) Transportation. The used, broken CRTs must be transported in a container meeting the requirements of paragraphs (a)(1)(ii) and (2) of this section.

(4) Speculative accumulation and use constituting disposal. The used, broken CRTs are subject to the limitations on speculative accumulation as defined in paragraph (c)(8) of this section. If they are used in a manner constituting disposal, they must comply with the applicable requirements of part 266, subpart C instead of the requirements of this section.

(5) Exports. In addition to the applicable conditions specified in paragraphs (a)(1)-(4) of this section, exporters of used, broken CRTs must comply with the following requirements:

(i) Notify EPA of an intended export before the CRTs are scheduled to leave the United States. A complete notification should be submitted sixty (60) days before the initial shipment is intended to be shipped off-site. This notification may cover export activities extending over a twelve (12) month or lesser period. The notification must be in writing, signed by the exporter, and include the following information:

(A) Name, mailing address, telephone number and EPA ID number (if applicable) of the exporter of the CRTs.

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(B) The estimated frequency or rate at which the CRTs are to be exported and the period of time over which they are to be exported.

(C) The estimated total quantity of CRTs specified in kilograms.

(D) All points of entry to and departure from each foreign country through which the CRTs will pass.

(E) A description of the means by which each shipment of the CRTs will be transported (e.g., mode of transportation vehicle (air, highway, rail, water, etc.), type(s) of container (drums, boxes, tanks, etc.)).

(F) The name and address of the recycler and any alternate recycler.

(G) A description of the manner in which the CRTs will be recycled in the foreign country that will be receiving the CRTs.

(H) The name of any transit country through which the CRTs will be sent and a description of the approximate length of time the CRTs will remain in such country and the nature of their handling while there.

(ii) Notifications submitted by mail should be sent to the following mailing address: Office of Enforcement and Compliance Assurance, Office of Federal Activities, International Compliance Assurance Division, (Mail Code 2254A), Environmental Protection Agency, 1200 Pennsylvania Ave., NW., Washington, DC 20460. Hand-delivered notifications should be sent to: Office of Enforcement and Compliance Assurance, Office of Federal Activities, International Compliance Assurance Division, (Mail Code 2254A), Environmental Protection Agency, Ariel Rios Bldg., Room 6144, 1200 Pennsylvania Ave., NW., Washington, DC. In both cases, the following shall be prominently displayed on the front of the envelope: "Attention: Notification of Intent to Export CRTs."

(iii) Upon request by EPA, the exporter shall furnish to EPA any additional information which a receiving country requests in order to respond to a notification.

(iv) EPA will provide a complete notification to the receiving country and any transit countries. A notification is complete when EPA receives a notification which EPA determines satisfies the requirements of paragraph (a)(5)(i) of this section. Where a claim of confidentiality is asserted with respect to any notification information required by paragraph (a)(5)(i) of this section, EPA may find the notification not complete until any such claim is resolved in accordance with 40 CFR 260.2.

(v) The export of CRTs is prohibited unless the receiving country consents to the intended export. When the receiving country consents in writing to the receipt of the CRTs, EPA will forward an Acknowledgment of Consent to Export CRTs to the exporter. Where the receiving country objects to receipt of the CRTs or withdraws a prior consent, EPA will notify the exporter in writing. EPA will also notify the exporter of any responses from transit countries.

(vi) When the conditions specified on the original notification change, the exporter must provide EPA with a written renotification of the change, except for changes to the telephone number in paragraph (a)(5)(i)(A) of this section and decreases in the quantity indicated pursuant to paragraph (a)(5)(i)(C) of this section. The shipment cannot take place until consent of the receiving country to the changes has been obtained (except for changes to information about points of entry and departure and transit countries pursuant to paragraphs (a)(5)(i)(D) and (a)(5)(i)(H) of this section) and the exporter of CRTs receives from EPA a copy of the Acknowledgment of Consent to Export CRTs reflecting the receiving country's consent to the changes.

(vii) A copy of the Acknowledgment of Consent to Export CRTs must accompany the shipment of CRTs. The shipment must conform to the terms of the Acknowledgment.

(viii) If a shipment of CRTs cannot be delivered for any reason to the recycler or the alternate recycler, the exporter of CRTs must renotify EPA of a change in the conditions of the original notification to allow shipment to a new recycler in accordance with paragraph (a)(5)(vi) of this section and obtain another Acknowledgment of Consent to Export CRTs.

(ix) Exporters must keep copies of notifications and Acknowledgments of Consent to Export CRTs for a period of three years following receipt of the Acknowledgment.

(b) Requirements for used CRT processing: Used, broken CRTs undergoing CRT processing as defined in Sec. 260.10 of this chapter are not solid wastes if they meet the following requirements:

(1) Storage. Used, broken CRTs undergoing processing are subject to the requirement of paragraph (a)(4) of this section.

(2) Processing.

(i) All activities specified in paragraphs (2) and (3) of the definition of "CRT processing" in Sec. 260.10 of this chapter must be performed within a building with a roof, floor, and walls; and

(ii) No activities may be performed that use temperatures high enough to volatilize lead from CRTs.

(c) Processed CRT glass sent to CRT glass making or lead smelting: Glass from used CRTs that is destined for recycling at a CRT glass manufacturer or a lead smelter after processing is not a solid waste unless it is speculatively accumulated as defined in Sec. 261.1(c)(8).

(d) Use constituting disposal: Glass from used CRTs that is used in a manner constituting disposal must comply with the requirements of 40 CFR part 266, subpart C instead of the requirements of this section.

**Add new title and text at 261.40:**

261.40 Conditional Exclusion for Used, Intact Cathode Ray Tubes (CRTs) Exported for Recycling.

Used, intact CRTs exported for recycling are not solid wastes if they meet the notice and consent conditions of Sec. 261.39(a)(5), and if they are not speculatively accumulated as defined in Sec. 261.1(c)(8).

**At 261.41 add new title and text to read:**

261.41 Notification and Recordkeeping for Used, Intact Cathode Ray Tubes (CRTs) Exported for Reuse.

(a) Persons who export used, intact CRTs for reuse must send a one-time notification to the Regional Administrator. The notification must include a statement that the notifier plans to export used, intact CRTs for reuse, the notifier's name, address, and EPA ID number (if applicable) and the name and phone number of a contact person.

(b) Persons who export used, intact CRTs for reuse must keep copies of normal business records, such as contracts, demonstrating that each shipment of exported CRTs will be reused. This documentation must be retained for a period of at least three years from the date the CRTs were exported.

**Fiscal Impact Statement:**

There will be minimal cost to the state and its political subdivisions. See Statement of Need and Reasonableness below.

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### Statement of Need and Reasonableness:

This Statement of Need and Reasonableness complies with S. C. Code Ann. Section 1-23-115(C)(1)-(3) and (9)-(11).

DESCRIPTION OF REGULATION: Amendment of R.61-79 Hazardous Waste Management Regulations.

Purpose: The purpose of this amendment is to maintain State consistency with modified regulations of the United States Environmental Protection Agency (EPA), which promulgated amendments to 40 CFR 260 and 261 by the US EPA at 71 FR 42928 in the July 28, 2006 publication of the *Federal Register*.

Legal Authority: South Carolina Hazardous Waste Management Act, S. C. Code Ann. Section 44-56-10 et seq. (2002 & Supp. 2007).

Plan for Implementation: Upon review by the General Assembly and publication in the *State Register* as a final regulation, amended regulations will be provided in hard copy and electronic formats to the community at cost through the Department's Freedom of Information Office and at the Bureau web site.

### DETERMINATION OF NEED AND REASONABLENESS OF THE REGULATION BASED ON ALL FACTORS HEREIN AND EXPECTED BENEFITS:

This rule provides modification of the Universal Waste program to streamline the management requirements for recycling of used Cathode Ray Tubes (CRTs) and glass removed from CRTs. The amendments exclude these materials from the RCRA definition of solid waste if certain conditions are met. This rule is intended to encourage handling of CRTs as commodities rather than as wastes and to promote the recycling of CRTs and reuse of used CRT glass.

### DETERMINATION OF COSTS AND BENEFITS:

This regulation excludes previously regulated volumes of CRTs from the federal definition of solid and hazardous waste. The economic analysis calculates administrative, storage, transportation and disposal/recovery costs.

Estimated national volumes of CRTs subject to RCRA regulation are 16,100 tons of monitors under the Subtitle C baseline. Between 3,690 tons of CRTs would be diverted from export or hazardous waste landfill to CRT glass manufacturing under this rule. The estimated average savings for a previously regulated small quantity generator is \$755 per year and \$1740 per year for a previously regulated large quantity generator under this rule.

The estimated cost/economic impact of this rule could save CRT handlers \$3.5 million per year relative to the Subtitle C baseline. This cost savings comes from reduced administrative, transportation and disposal management costs.

Some of the benefits resulting from this rule include conservation of landfill capacity, increase in resource efficiency, growth of a recycling infrastructure for CRTs and possible reduction of lead emissions to the environment from CRT recycling. EPA estimates that nationally, there are approximately 3,690 tons or 545,000 cubic feet of CRTs per year that would be redirected away from landfills towards recycling under the EPA's proposal. In addition, the use of processed CRT glass benefits the manufacturer in several ways, such as improving heat transfer and melting characteristics in the furnaces, lowering energy consumption, and maintaining or improving the quality of the final product. This rule will facilitate the growth and development of the CRT glass processing industry in the United States by reducing regulatory barriers to new glass processing firms becoming established. Finally, this rule will reduce lead emissions to the environment by diverting CRTs from municipal landfills and waste-to-energy facilities.

For purposes of assessing the impacts of this rule on small entities, the definition of a small entity is: (1) A small business that is defined by the Small Business Administration by category of business using the North American Industrial Classification system (NAICS) and codified at 13 CFR 121.201; (2) a small governmental jurisdiction that is a government of a city, county, town, school district or special district with a population of less than 50,000; and (3) a small organization that is any not-for-profit enterprise which is independently owned and operated and is not dominant in its field. The small entity analysis conducted by EPA for this proposal indicates that streamlining requirements for CRTs would generally result in savings to affected entities. Under the full compliance scenario, the rule is not expected to result in a net cost to any affected entity. Thus, adverse impacts are not anticipated. This action will not have a significant economic impact on a substantial number of small entities.

See Preliminary Fiscal Impact Statement above for costs to the state and its political subdivisions.

#### UNCERTAINTIES OF ESTIMATES:

No known uncertainties.

#### EFFECT ON ENVIRONMENT AND PUBLIC HEALTH:

The overall effects of this rule are expected to be beneficial to the public health and environment by promoting recycling and minimizing the hazardous waste stream. The adoption of this rule will reflect federal provisions in State law. The regulatory changes contained in the Cathode Ray Tubes final rule will have no negative impact on the many protections that EPA has established over the years for human health and the environment. Cathode Ray Tubes (CRTs) mean a vacuum tube, composed primarily of glass which is the video or visual display component of an electronic device (usually a computer or television monitor). CRTs would be considered commodities and excluded from the RCRA definition of solid waste if they were sent for recycling under certain conditions. Once the decision is made to dispose of them, the CRTs would be subject to requirements of 40 CFR part 262 and applicable land disposal restrictions (LDRs) under RCRA. They are then subject to RCRA hazardous waste determinations.

For CRTs to not be regulated as hazardous waste, certain criteria must be met. Intact CRTs could not be accumulated speculatively for longer than one year, they must be stored in a building with a roof, floor and walls. If they are not stored inside a building, they would have to be packaged and labeled under conditions identical to those proposed for used, broken CRTs prior to processing. EPA determined that intact CRTs are unlikely to release lead to the environment because the lead is contained in the plastic housing and the glass matrix. Other hazardous constituents sometimes present in CRT glass are mercury, cadmium and arsenic but these constituents are found in very low concentrations that are unlikely to exceed the Toxic Characteristic concentration limits. Broken CRTs must be stored in containers and labeled or marked clearly with "Used Cathode Ray Tubes-contains leaded glass" or "leaded glass from televisions or computers." Processed CRT glass (glass removed from CRTs) that is sent to a CRT glass manufacturer or a lead smelter must be processed in a building and no activities may be performed that uses temperatures high enough to volatilize lead.

Recyclers that intend to export Used CRTs (broken or intact) for recycling must provide a one-time notification of intent to export and requires getting written consent from the country to which the CRTs will be exported.

These requirements do not apply to CRTs generated by households or Conditionally Exempt Small Quantity Generators.

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### DETRIMENTAL EFFECT ON THE ENVIRONMENT AND PUBLIC HEALTH IF THE REGULATION IS NOT IMPLEMENTED:

EPA strongly recommends the adoption of this rule because if the minimum requirements specified under the regulations are not met, neither the facilities nor the Department can ensure that Used CRTs and mercury-containing equipment will be managed in a manner protective of human health and the environment.

#### **Statement of Rationale:**

Upon review of the final rules published by EPA in this regulation package, an administrative decision to adopt the CRT rule was made based on the assumption that the reduction in stringency would simplify the regulations without compromising human health and the environment.

This amendment reflects a change in current federal requirements, which the EPA encourages states to adopt, although states are not required to do so. This rule amends regulations under the Resource Conservation and Recovery Act (RCRA) to streamline management requirements for recycling of used CRTs and glass removed from CRTs. The amendment excludes the materials from the RCRA definition of solid waste if certain conditions are met. This rule is intended to encourage recycling and reuse of used CRTs and CRT glass. The proposed requirements for used CRTs and processed CRT glass would exclude these materials from the RCRA definition of solid waste if they were sent for recycling under certain conditions. The purpose of the proposed amendments is to encourage increased reuse, recycling, and better management of this growing waste stream, while maintaining necessary environmental protection. The conditions are intended to ensure that the materials are handled as commodities rather than as wastes.

Document No. 3210

### **DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL CHAPTER 61**

Statutory Authority: 1976 Code Sections 44-1-140(11), 44-1-150, 44-55-827, and 48-1-10 et seq.

#### 61-56.2. Licensing of Onsite Wastewater System Master Contractors

#### **Synopsis:**

The Department of Health and Environmental Control is creating a new regulation, entitled R.61-56.2, Licensing of Onsite Wastewater System Master Contractors. South Carolina Act No. 106, passed by the S.C. General Assembly in 2007, and codified at Section 44-55-827 of the S.C. Code of Laws, 1976, authorizes and requires the Department to promulgate a regulation that creates a tiered licensing program for onsite wastewater system contractors. The Act requires that this regulation include eligibility criteria, monitoring, standards for education and training, bonding and insurance requirements, administrative and licensing fees, and enforcement guidelines and penalties. This regulation contains all elements specified and required by the Act.

Staff initiated the statutory process for the promulgation of R.61-56.2 by publication of a Notice of Drafting in the State Register on January 25, 2008. Notice was also published on the Department's website in its Regulation Development Update at [www.scdhec.net/co/regs](http://www.scdhec.net/co/regs). Notice of Proposed Regulation was published in the State Register on March 28, 2008, and a Staff Informational Forum was conducted on April 25, 2008. Comments received were considered in formulating the proposed regulation. See the Statements of Need and Reasonableness and Rationale herein.

#### Sectional Discussion of New Regulation 61-56.2

Section 100. This section is created to describe the purpose of the proposed new regulation.

Section 200. This section is created to define terms used within the proposed new regulation.

Section 300. This section is created to describe who is eligible to be licensed as an onsite wastewater system master contractor.

Section 400. This section is created to describe the continuing education and training requirements for onsite wastewater system master contractors.

Section 500. This section is created to describe the scope of practice for an onsite wastewater system master contractor, the procedure utilized by these contractors, and the quality control procedures utilized by the Department.

Section 600. This section is created to describe the bonding and insurance requirements for onsite wastewater system master contractors.

Section 700. This section is created to establish application and license fees for onsite wastewater system master contractors and the administrative requirements for those fees.

Section 800. This section is created to describe the enforcement penalties, for violations of any provisions of this regulation or an onsite wastewater installation permit, for an onsite wastewater system master contractor.

Section 900. This section is included to disclose the severability rights of this regulation.

**Instructions:**

Add new Regulation 61-56.2 to Chapter 61 regulations.

**Text:**

61-56.2. LICENSING OF ONSITE WASTEWATER SYSTEM MASTER CONTRACTORS

CONTENTS

- 100. PURPOSE
- 200. DEFINITIONS
- 300. ELIGIBILITY
- 400. CONTINUING EDUCATION AND TRAINING
- 500. PRACTICE, PROCEDURE AND QUALITY CONTROL
- 600. BONDING AND INSURANCE REQUIREMENTS
- 700. APPLICATION AND LICENSE FEES
- 800. ENFORCEMENT
- 900. SEVERABILITY CLAUSE

100. PURPOSE

The purpose of this regulation is to protect public health and the environment by ensuring the competence of onsite wastewater system master contractors. Proper construction, installation and approval practices for onsite wastewater systems are essential for the safe treatment and disposal of domestic wastewater.

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### 200. DEFINITIONS

**ALTERNATIVE SYSTEM** - A system incorporating design modifications of the proposed subsurface wastewater infiltration area (drainfield) or absorption trench geometry for the purpose of achieving compliance with required setbacks and offset to the zone of saturation and/or restrictive horizons. No such system shall be utilized unless the Department has established a specific standard.

**ALTERNATIVE TILEFIELD PRODUCTS** - Products specifically designed to replace or eliminate the aggregate typically utilized in soil absorption trenches. Such products must be approved for use by the Department and must adhere to required equivalency values established herein.

**APPLICANT** - A property owner, general contractor or agent representing the property owner, or a developer who seeks a permit to construct and operate an onsite wastewater system.

**BOND** - A sum of money set aside (Surety Bond) to insure completion of work under a contract.

**CONVENTIONAL SYSTEM** - An onsite wastewater system that utilizes a network of conventional absorption trenches installed in the naturally occurring soil for the treatment and disposal of domestic wastewater.

**CONSTRUCT** - The installation or repair of an onsite sewage treatment and disposal system.

**DEPARTMENT** - The South Carolina Department of Health and Environmental Control (DHEC).

**DOMESTIC WASTEWATER** - The untreated liquid and solid human body waste and the liquids generated by water-using fixtures and appliances, including those associated with food service operations. For the purposes of this regulation, domestic wastewater shall not include industrial process wastewater.

**EFFLUENT** - The liquid discharged from a septic tank, effluent pump station, or other sewage treatment device.

**EXISTING SYSTEM** - An onsite wastewater system, which has received final construction approval or has been serving a legally occupied residence or structure.

**FAILING ONSITE WASTEWATER SYSTEM** - An onsite wastewater system that is discharging effluent in an improper manner or has ceased to function properly.

**LICENSE** - The official document issued by the Department authorizing a person to provide services for installation, repair, modification or final inspection and approval of onsite wastewater systems that they install.

**LICENSED SEPTIC TANK CONTRACTOR** - A person authorized under Regulation 61-56.1, License to Construct or Clean Onsite Sewage Treatment and Disposal Systems and Self-Contained Toilets, to construct, repair or clean onsite sewage disposal systems or self contained toilets.

**ONSITE WASTEWATER SYSTEM** - A system, generally consisting of a collection sewer, septic tank(s), and soil absorption trenches (subsurface wastewater infiltration area), designed to treat and dispose of domestic wastewater through a combination of natural processes that ultimately result in effluent being transmitted through the soil, renovated, and ultimately discharged to groundwater.

**ONSITE WASTEWATER SYSTEM MASTER CONTRACTOR** - A person authorized under this regulation to construct, repair, modify, inspect and issue final construction approval for onsite wastewater systems that they install.



**PERMIT** - A written document issued by the Department authorizing the construction and operation of an onsite wastewater system under Regulation 61-56. The construction and operation permit survives the life of the onsite wastewater system that it authorizes.

**REPAIR** - Any work performed on an existing onsite wastewater system for the purposes of correcting a surface failure or other unauthorized discharge, enhancing system performance, or relocating the entire system or system components, provided there are no changes in use that would impact the existing system.

**REVOCATION** - The permanent withdrawal of rights and privileges granted by a license.

**SEPTIC TANK** - A watertight, covered receptacle designed and constructed to receive the discharge of domestic wastewater from a building sewer, separate solids from the liquid, digest organic matter, store digested solids through a period of detention and biological conditioning of liquid waste, and allow the effluent to discharge for final treatment and disposal.

**SOIL ABSORPTION TRENCH** - A trench installed in the naturally occurring soil that is utilized for the treatment and disposal of domestic wastewater. A conventional trench is characterized by the following: (a) at least twenty-three (23) inches in depth; (b) thirty-six (36) inches in width; (c) filled with aggregate so that at least six (6) inches is beneath the distribution pipe, with at least five (5) inches on both sides of the pipe, and at least three (3) inches covering the pipe; and (d) at least nine (9) inches of backfill. Other trench configurations are specified in Regulation 61-56 Appendices of Standards for Onsite Wastewater Systems.

**STANDARD** - A group of requirements developed by the Department that specifies the minimum site conditions and design criteria necessary for the approval of a specific type of onsite wastewater system (i.e., alternative system) that differs from a conventional system. A standard may also address minimum design criteria for certain components of onsite wastewater systems as well as methodologies for determining system sizing.

**SUBSURFACE WASTEWATER INFILTRATION AREA (DRAINFIELD)** - A specific area where a network of soil absorption trenches or other devices of sewage application are installed to provide the final treatment and disposal of effluent.

**SURETY AGREEMENT** - Through this agreement, the surety agrees to uphold - for the benefit of the obligee - the contractual promises (obligations) made by the principal if the principal fails to uphold its promises to the obligee.

**SUSPENSION** - The temporary or indefinite withdrawal of rights and privileges granted by a license.

### 300. ELIGIBILITY

An onsite wastewater systems contractor currently licensed under R. 61.56.1, who meets the following criteria, is eligible to be licensed as an onsite wastewater systems master contractor:

(1) a licensed onsite wastewater systems contractor who has been actively installing for three (3) years immediately preceding the date of application with no disciplinary action pending involving septic tank contracting; or

(2) an onsite wastewater systems contractor licensee from another state with affidavits from the regulatory authority supporting five (5) years of experience with no pending disciplinary action involving septic tank contracting; and

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- (3) the ability to pass an examination administered by the Department with a minimum score of eighty percent (80 %); and
- (4) a properly completed application with supporting documents (if required); and
- (5) proof of required bond and insurance coverage; and
- (6) payment of applicable fees.

### 400. CONTINUING EDUCATION AND TRAINING

400.1. The master contractor will be required to complete six (6) contact hours of training and continuing education every year from the date of licensing to renew the master contractor license. The Department will provide a listing of approved training providers and courses to meet this requirement.

400.2. The master contractor who fails to meet the training and continuing education requirements will lose the rights and privileges granted under that license until such time as these requirements have been met.

400.3. If the master contractor fails to meet the training and education requirement within the next licensing period, the license will be considered void.

400.4. If a master contractor completes more than the required six (6) hours in a licensing period, as many as three (3) hours can be rolled over into the requirement for the next licensing period.

### 500. PRACTICE, PROCEDURE AND QUALITY CONTROL

#### 500.1. Practice

(1) Onsite wastewater systems installed and approved by master contractors must be installed pursuant to, and in compliance with, construction and operation permits issued by the Department.

(2) The master contractor does not have the authority to change an issued permit without first obtaining Department approval.

(3) A master contractor authorized under this regulation will be able to install, inspect and approve any system permitted by the Department under Regulation 61-56 that the master contractor installs himself except those systems designed by a Licensed Professional Engineer.

(4) The master contractor, after giving the Department the opportunity to do a final inspection of the installed system, may record and document the necessary measurements on a form approved by the Department, issue final approval, and cover the installation.

(5) The as-built drawings, along with the master contractor's signature and license number, must be submitted to the Department, with a copy being provided to the property owner for whom the system was installed.

#### 500.2. Procedure

(1) The master contractor shall arrange a time, for the final inspection of an onsite wastewater system that is being installed, with a representative of the Department. If, after thirty (30) minutes of that arranged time, the Department representative has not arrived for the inspection, the master contractor may:

- (a) inspect the system;
- (b) record the findings on a form approved by the Department;
- (c) grant final construction approval to the installation; and
- (d) cover the system.

(2) The as-built drawings containing the required measurements and other documentation shall be submitted to the Department no later than the close of business on the next business day. A copy of this document(s) must also be furnished to the property owner for whom the system was installed.

### 500.3. Quality Control

The Department is required to conduct random final inspections on no less than three percent (3%) annually of the total number of systems installed during the preceding fiscal year. The Department will also conduct field reviews of the as-built drawings submitted by the master contractor compared with the actual installations those drawings represent.

## 600. BONDING AND INSURANCE REQUIREMENTS

600.1. Proof of both insurance and bond coverage shall be furnished to the Department prior to licensure as a master contractor and upon annual license renewal.

600.2. The onsite wastewater system master contractor shall be responsible for obtaining and maintaining both insurance and bond coverage for as long as the contractor is operating as a master contractor.

600.3. Failure to maintain both insurance and bond coverage shall result in the suspension or revocation of the master contractor license.

## 700. APPLICATION AND LICENSE FEES

700.1. The application fee for an onsite wastewater systems master contractor license shall be seventy-five dollars (\$75.00); this fee must be submitted with the completed application. The application fee is non-refundable.

700.2. Upon successful completion of the application and examination requirements, each licensee shall pay a licensing fee of two hundred dollars (\$200.00).

700.3. The annual renewal fee for each license shall be two hundred dollars (\$200.00).

700.4. Failure to pay the annual renewal fee shall result in the suspension or revocation of the master contractor license.

700.5. Licenses issued in accordance with this regulation shall not be transferable.

## 800. ENFORCEMENT

800.1. Deviation from the installation design and conditions in onsite wastewater permits may be considered a violation of this regulation.

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800.2. Violation of an onsite wastewater system installation permit, or any provisions of this regulation, by a master contractor, must be enforced in accordance as follows:

(1) First offense violations may be enforced under S.C. Code Section 44-1-150 or by suspension of the installer's license for a period not to exceed one (1) year.

(2) Second offense violations may be enforced under S.C. Code Section 44-1-150 or by suspension of the installer's license for a period not to exceed three (3) years.

(3) Third offense violations may be enforced under S.C. Code Section 44-1-150 or by permanent revocation of the installer's license.

800.3. A Department decision involving the issuance, denial, renewal, modification, suspension, or revocation of a permit or license may be appealed by an affected person with standing pursuant to applicable law, including S.C. Code Title 44, Chapter 1 and Title 1, Chapter 23.

## 900. SEVERABILITY CLAUSE

This regulation is issued under the authority of Sections 44-1-140(11), 44-1-150, 44-55-827, and 48-1-10 et seq. of the 1976 Code of Laws, as amended. It shall be enforced in accordance with interpretations and public health reasons approved by the Department. Should any section, paragraph, sentence, clause or phrase of this regulation be declared unconstitutional or invalid for any reason, the remainder of this regulation shall not be affected thereby.

### **Fiscal Impact Statement:**

The Department estimates there will be no new costs imposed on the State or its political subdivisions by this regulation. There will be additional costs in application and licensing fees for those who choose to participate in the master contractor program.

### **Statement of Need and Reasonableness:**

The Statement of Need and Reasonableness was determined by staff analysis pursuant to S.C. Code Sections 1-23-115(C)(1)-(3) and (9)-(11):

### **DESCRIPTION OF REGULATION:**

**Purpose:** The purpose of this regulation is to protect public health and the environment by ensuring the competence of onsite wastewater system master contractors. Proper construction, installation and approval practices for onsite wastewater systems are essential for the safe treatment and disposal of domestic wastewater. Act No. 106, passed by the General Assembly in 2007 and codified at S.C. Code Section 44-55-827, authorizes and requires the Department to promulgate a regulation that creates a tiered licensing program for onsite wastewater system contractors. This regulation contains all elements specified and required by the Act.

**Legal Authority:** The legal authority for R.61-56.2 is Sections 44-1-140(11), 44-1-150, 44-55-827, and 48-1-10 et seq. of the S.C. Code of Laws, 1976, as amended.

**Plan for Implementation:** The regulation will take effect upon approval by the General Assembly and publication in the *State Register*. The regulated community will be provided copies of the regulation.

**DETERMINATION OF NEED AND REASONABLENESS OF THE REGULATION BASED ON ALL FACTORS HEREIN AND EXPECTED BENEFITS:**

R.61-56.2 protects the health and environment of South Carolina's citizens by ensuring that onsite wastewater system master contractors are licensed and qualified to carry out the responsibilities of the master contractor designation. The regulation creates a tiered licensing program for onsite wastewater system contractors that includes eligibility criteria, monitoring, standards for education and training, bonding and insurance requirements, administrative and licensing fees, and enforcement guidelines and penalties. The regulation contains all elements specified and required by Act 106.

**DETERMINATION OF COSTS AND BENEFITS:**

There are no anticipated new costs associated with the implementation of this regulation for the state or any political subdivisions. There will be additional costs in application and licensing fees for those who choose to participate in the master contractor program.

There will be a benefit to South Carolina by ensuring that the regulation and the Department continue to protect the health and environment of South Carolina's citizens by ensuring that onsite wastewater system master contractors are licensed and qualified to carry out the responsibilities of the master contractor designation.

**UNCERTAINTIES OF ESTIMATES:**

None.

**EFFECT ON ENVIRONMENT AND PUBLIC HEALTH:**

The regulation will protect the health and environment of South Carolina's citizens by ensuring that onsite wastewater system master contractors are licensed and qualified to carry out the responsibilities of the master contractor designation.

**DETRIMENTAL EFFECT ON THE ENVIRONMENT AND PUBLIC HEALTH IF THE REGULATION IS NOT IMPLEMENTED:**

Not implementing the regulation will prevent continued assurance that onsite wastewater system master contractors are licensed and qualified to carry out the responsibilities of the master contractor designation.

**Statement of Rationale:**

This regulation was promulgated in response to the requirements set forth by Act 106 passed by the S.C. General Assembly in 2007. It creates a tiered licensing program for onsite wastewater system contractors that includes all elements specified and required by the Act.

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Document No. 4017

### DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL

#### CHAPTER 61

Statutory Authority: 1976 Code Sections 1-23-10 through 1-23-110, 44-1-140(3), and 44-1-150

#### 61-34. Milk and Milk Products

##### **Synopsis:**

Regulation 61-34 ensures that consumers are receiving safe, high quality, Grade “A” raw milk for human consumption. The regulation addresses sanitation standards for milk production facilities (including farms) and addresses food safety and packaging requirements associated with raw milk. The regulation was last amended in 1993. These amendments include food safety standards for raw milk, permit requirements, sampling and reporting requirements, laboratory procedures, labeling standards, enforcement procedures, and other related editorial and stylistic changes as necessary to improve the overall quality of the Regulation.

See Discussion of the Revisions below and Statement of Need and Reasonableness herein.

##### Discussion of Revisions:

##### SECTION/REVISION

All. Format changed to make the regulation more user-friendly. Sections outlining “Administrative Procedures” have been eliminated, and requirements set forth in “Administrative Procedures” have been incorporated into the regulation requirements.

Contents.	Table of Contents added.
Section I.A.	Two definitions changed; seventeen new definitions added, old definitions removed.
Section I.B.	General language added to set forth standards for raw milk for human consumption.
Section II.A. operations.	Language revised to take out references to pasteurized milk and pasteurization
Section II.B.	Authority to impound adulterated or misbranded milk added.
Section II.C.	Language revised to clarify the regulation.
Section II.D.	Language revised to clarify the regulation and take out references to products other than raw milk for human consumption.
Section II.E.	Revised to reflect current nomenclature.
Section II.F.	Language changed to clarify the regulation and to set forth procedures for addressing drug residue adulteration violations, including requirements for handling and disposing of milk that tests positive for drug residue.
Section III.A.	Language revised to clarify the regulation.
Section III.B.	Language revised to clarify the regulation; enforcement procedures moved to a different section.

Section III.C. different section.	Language revised to clarify the regulation; enforcement procedures moved to a
Section III.D past history.	Language added to give the Department the authority to deny a permit based upon
Section IV.A. deleted.	Language revised to clarify the regulation; references to pasteurized milk operations
Section IV.B.	Labeling requirements for raw milk for human consumption added.
Section IV.B.3.	Language required on the label has been clarified and simplified.
Section IV.C.	Language revised to clarify the regulation.
Section V.A.	Language revised to clarify the regulation.
Section V.B.	Language revised to clarify the regulation, and language added to allow immediate action on milk contaminated by processing elements.
Section V.C. deleted.	Language revised to clarify the regulation; references to pasteurized milk operations
Section V.D.	Added to allow inspections as necessary.
Section V.E.	Added for the inspector to identify himself/herself when making inspections.
Section V.F.	Added to allow access for inspections.
Section V.G.	Language revised to clarify the regulation.
Section VI.A.	Added to allow sampling of raw milk for human consumption.
Section VI.B.	Added to require sampling prior to issuing a permit.
Section VI.C.	Language modified to clarify when testing for pathogenic organisms, by the producer, is required. Language has been added to require the Department to provide up to two (2) tests for pathogens when testing is done in association with a suspected outbreak of disease.
Section VI.D.	Language revised to clarify the regulation.
Section VI.E. multiple samples.	Language revised to clarify the regulation; language added to clarify handling of
Section VI.F.	Language revised to clarify the regulation.
Section VI.G.	Language revised to clarify the regulation.
Section VI.H. outbreak.	Added to allow testing for pathogenic organisms in response to a suspected disease

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Section VI.I. The language and requirement has been changed to “The permit shall remain suspended until a representative sample containing a minimum of two (2) consecutive milkings is found to be free of pathogenic organisms.”

Section VI.L. Added to specify laboratory procedures in testing raw milk samples.

Section VI.L.f. Language added to incorporate testing methods prescribed by the Centers for Disease Control and Prevention.

Section VI.M. Added to specify sampling procedures.

Section VI.N. Added to specify handling of raw milk samples.

Section VII.A. Added to specify standards for raw milk for human consumption.

Section VII.A. Standard for pathogenic organisms included in Table 1. The four primary pathogenic organisms of concern are listed in the table.

Section VII.B. Revised to clarify the regulation, move requirements under “Administrative Procedures” into the requirements of the regulation, to delete references to pasteurized milk operations, to incorporate regulation requirements into a more usable format, and to incorporate standards that reflect current practices and procedures in the milk and dairy industry.

Section VIII.A. Added to establish standards for bottling, packaging and container filling of raw milk for human consumption.

Section VIII.B. Added to establish standards for container caps, sealers and closers.

Section IX.A. Revised to clarify the regulation, and to prohibit distribution of raw milk for human consumption that comes from unhealthy animals.

Section IX.B. Revised to clarify the regulation, and language added to delineate practices for handling animals infected with tuberculosis and/or brucellosis.

Section IX.C. Added to delineate practices for handling animals with illnesses other than tuberculosis and brucellosis.

Section IX.D. Added to address animals from outside South Carolina being brought into the state.

Section IX.E. Added to require adequate records of animal treatments and disposition.

Section X.A. Added to require producers to have recall procedures and to implement a product recall when conditions warrant such.

Section XI.A. Revised to clarify the regulation, and to add the reference to Section 44-1-150 of the South Carolina Code of Laws for enforcement.

Section XI.B. Added to allow for the suspension of a permit when conditions warrant, and delineate when permit suspension is an appropriate enforcement action.

Section XI.C. Added to delineate when the Department may revoke a permit.



Section XI.D. Added to sent procedures for the reinstatement of a suspended permit; language added to allow the Department to deny a permit to anyone whose permit has been revoked, based upon past history.

Section XI.E. Added to allow for civil penalties as an enforcement action, and providing for an appeals process for enforcement actions.

Section XII. Severability clause added.

**Instructions:**

Replace R.61-34 in its entirety by this amendment:

**Text:**

61-34. Raw Milk for Human Consumption.

**CONTENTS**

SECTION I.	Definitions and Standards
SECTION II.	Adulterated or Misbranded Milk
SECTION III.	Permits
SECTION IV.	Labeling
SECTION V.	Inspection of Dairy Farms Bottling Raw Milk for Human Consumption
SECTION VI.	The Examination of Raw Milk for Human Consumption
SECTION VII.	Standards for Raw Milk for Human Consumption
SECTION VIII.	Bottling, Packaging, Container Filling and Container Closure/Sealing
SECTION IX.	Animal Health
SECTION X.	Recall
SECTION XI.	Enforcement
SECTION XII.	Severability Clause

SECTION I. Definitions and Standards.

A. The following definitions shall apply in the interpretation and the enforcement of this Regulation:

1. ABNORMALITIES OF MILK means

a. Abnormal Milk: Milk that is visibly changed in color, odor and/or texture.

b. Undesirable Milk: Milk that, prior to the milking of the animal, is known to be unsuitable for sale, such as colostrum.

c. Contaminated Milk: Milk that is not sellable or is unfit for human consumption following treatment of the animal with veterinary products, i.e. antibiotics, which have withhold requirements or treatment with medicines or insecticides not approved for use on dairy animals by the United States Food and Drug Administration (FDA) or the United States Environmental Protection Agency (EPA).

2. AUTOMATIC MILKING INSTALLATION (AMI) means the entire installation of one (1) or more automatic milking units, including the hardware and software utilized in the operation of individual automatic milking units, the animal selection system, the automatic milking machine, the milk cooling system, the system for cleaning and sanitizing the automatic milking unit, the teat cleaning system and the alarm systems associated with the process of milking, cooling, cleaning and sanitation.

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3. CLEAN means direct product contact surfaces that have had the effective and thorough removal of product and/or contaminants.

4. CODE OF FEDERAL REGULATIONS (CFR) means the current Code of Federal Regulations.

5. COMMON NAME means the generic term commonly used for domestic animals, i.e., cattle, goats, sheep, horses, water buffalo, etc.

6. COOLING POND MEANS a man-made structure designed for the specific purpose of cooling cows.

7. DAIRY FARM means any place or premises where one (1) or more lactating animals (cows, goats, sheep, water buffalo, or other hooved mammals) are kept for milking purposes and from which a part or all of the milk is provided, sold, or offered for sale.

8. DEPARTMENT means the South Carolina Department of Health and Environmental Control and its representatives.

9. DRUG means:

a. articles recognized in the official United States Pharmacopeia, official Homeopathic Pharmacopeia of the United States, or official National Formulary or any supplement to any of them;

b. articles intended for use in the diagnosis, cure, mitigation, treatment, or prevention of disease in man or other animals;

c. articles (other than food) intended to affect the structure or any function of the body of man or other animals; and

d. articles intended for use as a component of any articles specified in clause a, b, or c but does not include devices or their components, parts, or accessories.

10. GOAT MILK means the normal lacteal secretion, practically free of colostrum, obtained by the complete milking of one (1) or more healthy goats. Goat milk sold in retail packages shall contain not less than 2.5 percent milkfat and not less than 7.5 percent milk solids not fat. Goat milk shall be produced according to the sanitary standards of this Regulation.

11. MILK means the normal lacteal secretion of hooved mammals, practically free of colostrum, obtained by the complete milking of one (1) or more healthy hooved mammals. This product shall be produced according to the sanitary standards of this Regulation. Hooved mammals milk shall include bovine milk, goat milk, sheep milk, and water buffalo milk.

12. MILK DISTRIBUTOR means any person who offers for sale milk that has been packaged at the same location that it was produced.

13. MILK PRODUCER means any person who operates a dairy farm and provides, sells, or offers milk for sale that was produced at the farm.

14. MISBRANDED MILK means any milk deemed to be misbranded when:

a. the product's container bears or accompanies any false or misleading written, printed, or graphic matter;

b. the milk does not conform to the definitions as contained in this Regulation; and

c. the product is not labeled in accordance with this Regulation.

15. OFFICIALLY DESIGNATED LABORATORY means a commercial laboratory authorized to do official work by the Department or a milk industry laboratory officially designated by the Department for the examination of producer samples of Grade A raw milk for human consumption and commingled milk tank truck samples of raw milk for drug residues and bacterial limits.

16. PERSON means any individual, partnership, corporation, company, firm, trustee, association or institution.

17. SANITIZATION means the application of any effective method or substance to a clean surface for the destruction of pathogens and of other organisms as far as is practical. Such treatment shall not adversely affect the equipment, the milk or milk product or the health of consumers and shall be acceptable to the Department.

18. SHEEP MILK means the normal lacteal secretion practically free of colostrum, obtained by the complete milking of one (1) or more healthy sheep. Sheep milk shall be produced according to the sanitary standards of this Regulation.

19. WATER BUFFALO MILK means the normal lacteal secretion, practically free of colostrum, obtained by the complete milking of one (1) or more healthy water buffalo. Water buffalo milk shall be produced according to the sanitary standards of this Regulation.

#### B. Standards.

All Grade "A" raw milk for human consumption shall be bottled, packaged and sealed at the same location where it was produced, and it shall conform to the chemical, physical, bacteriological and temperature standards and the sanitation requirements of this Regulation.

### SECTION II. Adulterated or Misbranded Milk.

A. No person shall, within the State of South Carolina or its jurisdiction, produce, provide, sell, offer, or expose for sale, or have in possession with intent to sell any milk that is adulterated or misbranded.

B. Any adulterated or misbranded milk or milk product may be impounded by the Department and disposed of in accordance with applicable laws or regulations.

C. Milk shall be examined by the Department as often as necessary to determine that it is not adulterated or misbranded. The Department may, upon written notice to the owner or person in charge, place a hold order on any milk or milk product that it determines, or has probable cause to believe, to be unwholesome or otherwise adulterated or misbranded. Under a hold order, milk shall be permitted to be suitably stored. It shall be unlawful for any person to remove or alter a hold order, notice, or tag placed on milk or milk products by the Department, and neither such milk nor the containers thereof shall be relabeled, repacked, reprocessed, altered, disposed of, or destroyed without permission of the Department except on order by a court of competent jurisdiction.

D. When the freezing point of milk is greater than 31°F. (-0.525°C.), the farm shall be notified that apparently the milk contains added water. If a second violation of this freezing point standard occurs within two (2) years, an observed milking or operation of processing shall be conducted and samples analyzed. The

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freezing point obtained from milk collected during the observation shall be used to determine a definite freezing point from the individual farm. A violation of the determined freezing point for a specific operation by over three (3) percent within two (2) years of setting the standard shall call for a two (2) day permit suspension or equivalent.

E. A cryoscope shall be used to determine adulteration by water.

F. When milk is found to be adulterated by the presence of drugs, pesticides, herbicides or other poisonous substances, it shall be impounded and additional samples analyzed. Milk found to be adulterated shall be disposed of until analysis shows the product not to be adulterated. If testing reveals milk positive for drug residues, the milk shall be disposed of in a manner that removes it from the human or animal food chain. The Department shall immediately suspend the producer's Grade "A" permit, or equally effective measures shall be taken, to prevent the sale of milk containing drug residues, and a penalty shall be imposed. Future sales are prohibited until subsequent testing reveals the milk is free of drug residue. The Grade "A" producer's permit may be reinstated to allow the sale of milk for human food when a representative sample taken from the producer's milk is no longer positive for drug residue. Whenever a drug residue test is positive, a recall shall be initiated and an investigation shall be made to determine the cause. The farm inspection must be completed by the Department to determine the cause of the residue and actions taken to prevent future violations, including on-farm changes in procedures necessary to prevent future occurrences as recommended by the Department.

### SECTION III. Permits.

A. It shall be unlawful for any person who does not possess a permit from the Department to manufacture, bring into, send into, or receive into South Carolina or its jurisdiction, have in storage, sell or offer for sale therein, or offer to give away any milk or milk products defined in this Regulation.

B. Only a person who complies with the requirements of this Regulation shall be entitled to receive and retain such a permit. Permits shall not be transferable to other persons and/or locations.

C. Every milk producer and distributor of raw milk for human consumption shall hold a valid permit issued by the Department prior to beginning operation. No permit shall be issued until all parts of the operation meet the requirements of this Regulation.

D. The Department may deny a permit to produce, distribute or sell raw milk for human consumption when the applicant or facility has a history of difficulty in complying with other standards, regulations or statutes governing milk and milk products.

### SECTION IV. Labeling.

A. All bottles, containers, and packages enclosing raw milk for human consumption shall be labeled in accordance with the applicable requirements of the Federal Food, Drug and Cosmetic Act as amended, the Nutrition Labeling and Education Act (NLEA) of 1990 and regulations developed thereunder, the Code of Federal Regulations, and in addition shall comply with the applicable requirements of this section.

B. All bottles, containers, and packages enclosing raw milk for human consumption shall be conspicuously marked with:

1. the words "Grade A Raw" on the exterior surface. Acceptable locations shall include the principal display panel, the secondary or informational panel, or the cap/cover.

2. the identity of the farm where packaged. This identity shall include the name, address, and the Department Permit Number.

3. the following information statement, in print no smaller than six (6) point font, shall be included on the package: "This is a raw milk product that is not pasteurized."

4. the common name of the hooved mammal producing the milk shall precede the name of the milk when the product is made from other than cattle's milk. As an example, "Goat," "Sheep," "Water Buffalo," or "Other Hooved Mammal" milk respectively.

C. The Department shall not permit the use of any misleading marks, words, or endorsements upon the label. The Department may permit the use of registered trade designs or similar terms on the bottle cap or label, when, in its opinion, they are not misleading and are not used to obscure the labeling required by the Regulation. Descriptive labeling terms must not be used in conjunction with the Grade "A" designation or name of the raw milk and must not be false or misleading.

#### SECTION V. Inspection of Dairy Farms Bottling Raw Milk for Human Consumption.

A. Each dairy farm manufacturing raw milk for human consumption shall be inspected by the Department prior to the issuance of a permit. Following the issuance of a permit, the Department shall inspect each dairy farm at least once every three (3) months. For the purposes of determining the inspection frequency for dairy farms producing raw milk for human consumption, the interval shall include the designated three (3)-month period in addition to the remaining days of the month in which the inspection is due. Inspections of dairy farms shall be made at milking time as often as possible.

B. Should a violation of any requirement set forth in Section VII be found to exist on an inspection, a second inspection shall be required after the time deemed necessary to remedy the violation, but not before three (3) days. This second inspection shall be used to determine compliance with the requirements of Section VII. Any violation of the same requirement of Section VII on such second inspection shall call for enforcement action pursuant to Section XI of this Regulation provided that when the Department finds that a critical processing element violation involving conditions whereby direct contamination of raw milk is occurring, the Department shall take immediate action to prevent further movement of such milk until such violations of critical processing element(s) have been corrected.

C. One copy of the inspection report shall be handed to the producer, or other responsible person, or be posted in a conspicuous place on an inside wall of the establishment. Said inspection report shall not be defaced and shall be made available to the Department upon request. An identical copy of the inspection report shall be filed with the records of the Department.

D. The Department shall also make such other inspections and investigations as are necessary for the enforcement of this Regulation.

E. Inspection Notification - The inspector should advise the owner or other responsible person of the intent to inspect upon arrival at the premises.

F. Every permit holder shall, upon request of the Department, allow access of officially designated persons to all parts of the permitted establishment or facilities to determine compliance with the provisions of this Regulation.

G. It shall be unlawful for any person who, in an official capacity, under the provisions of this Regulation obtains any information of disposition of milk, or results of inspections or tests thereof to use such information to his/her own advantage or to reveal it to any unauthorized person.

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### SECTION VI. The Examination of Raw Milk for Human Consumption.

A. Samples of raw milk for human consumption may be taken for scientific examination for public health purposes, at any reasonable time or place, and examined bacteriologically or for any other public health reason by agents of the Department.

B. Samples of raw milk for human consumption shall be collected and tested prior to a permit being issued. No permit shall be issued until the milk meets the requirements of Section VII.A.

C. The producer shall provide to the Department satisfactory pathogenic testing results prior to:

1. receiving a permit and beginning production and/or distribution; or

2. reinstatement of a permit that has been suspended because of positive results of testing for pathogenic organisms in association with a suspected outbreak of disease. In testing associated with a suspected outbreak of disease, the Department shall provide up to two (2) tests at no cost to the producer; pathogen testing required beyond these two (2) tests shall be the responsibility of the producer.

D. During any consecutive six (6) months, at least four (4) samples of raw milk for human consumption shall be collected from each producer in at least four (4) separate months, except when three (3) months show a month containing two (2) sampling dates separated by at least twenty (20) days. These samples shall be obtained under the direction of the Department or shall be taken from each producer under the direction of the Department and delivered in accordance with this section.

E. Required bacterial counts, somatic cell counts, and cooling temperature checks shall be performed on raw milk for human consumption. In addition, drug tests on each producer's milk shall be conducted at least four (4) times during any consecutive six (6) months.

F. When multiple samples of the same milk are collected from the same producer from multiple tanks on the same day, the laboratory results shall be averaged arithmetically by the Department and recorded as the official results for that day. This is applicable for bacterial (standard plate count and coliform), somatic cell count and temperature determinations only.

G. Whenever two (2) of the last four (4) consecutive bacterial counts, somatic cell counts, coliform determinations, or cooling temperatures, taken on separate days exceed the standard for the milk as defined in this Regulation, the Department shall send a certified or hand-delivered written notice thereof to the person concerned. This notice shall be in effect so long as two (2) of the last four (4) consecutive samples exceed the standard. An additional sample shall be taken within twenty-one (21) days of the sending of such notice, but not before the lapse of three (3) days. Immediate suspension of permit shall be implemented whenever the standard is violated by three (3) of the last five (5) bacterial counts, coliform determinations, cooling temperatures or somatic cell counts.

H. Whenever a pesticide residue test is positive, an investigation shall be made to determine the cause, and the cause shall be corrected. An additional sample shall be taken and tested for pesticide residues, and no milk shall be offered for sale until it is shown by a subsequent sample to be free of pesticide residues or below the actionable levels established for such residues.

I. When sampling for pathogenic organisms is conducted in association with a suspected outbreak of disease, and the samples test positive for pathogenic organisms, the Department shall immediately suspend the permit. The permit shall remain suspended until a representative sample containing a minimum of two (2) consecutive milkings are found to be free of pathogenic organisms.

J. Samples shall be analyzed at an official or appropriate officially designated laboratory. All sampling procedures and required laboratory examinations shall be in substantial compliance with the latest edition of Standard Methods for the Examination of Dairy Products (SMEDP) of the American Public Health Association, and the latest edition of Official Methods of Analysis (OMA) of the Association of Official Agricultural Chemists (AOAC) International. Such procedures, including the certification of sample collectors, and examinations shall be evaluated in accordance with the Evaluation of Milk Laboratories.

K. All violations of bacteria, coliform, somatic cell counts and cooling temperature standards shall be followed promptly by inspection to determine and correct the cause.

L. Laboratory Techniques - Procedures for the collection and holding of samples; the selection and preparation of apparatus, media and reagents; and the analytical procedures, incubation, reading and reporting of results, shall be in substantial compliance with FDA 2400 Series forms, SMEDP and OMA.

1. The procedures shall be those specified therein for:

a. Standard plate count at 32°C (Agar or Petrifilm Method).

b. Alternate methods, including Plate Loop Count and the Bacto Scan FC and the Spiral Plate Count Method for viable counts for raw milk.

c. Coliform test with solid media or Petrifilm method at 32°C, and the Petrifilm High Sensitivity Coliform Count Method for all milk.

d. Beta lactam methods which have been independently evaluated or evaluated by FDA and have been found acceptable by FDA for detecting drug residues in raw milk shall be used for each drug of concern. Regulatory action shall be taken on all confirmed positive results. A result shall be considered positive if it has been obtained by using a method that has been evaluated and deemed acceptable by FDA at levels established in memoranda transmitted periodically by FDA.

e. Screening and confirmatory methods for the detection of abnormal milk: The results of the screening test or confirmatory test shall be recorded on the official records of the dairy farm and a copy of the results sent to the milk producer.

(1) Milk (Non-Goat): Any of the following confirmatory or screening tests shall be used: Direct Microscopic Somatic Cell Counting Single Strip Procedure, Electronic Somatic Cell Counting or Flow Cytometry/Opto-Electronic Somatic Cell Counting.

(2) Goat Milk: In addition to the above mentioned tests, the California Mastitis Test may be used for screening raw goat milk samples, to indicate a range of somatic cell levels, as long as the somatic cell standard for goat milk remains 1,000,000/mL. Laboratories using the Wisconsin Mastitis Test or California Mastitis Test for goat milk shall confirm samples of herd milk that exceeds 18mm, or a value of one (1), respectively. Any of the following confirmatory or screening tests shall be used: Direct Microscopic Somatic Cell Counting Single Strip Procedure, Electronic Somatic Cell Counting or Flow Cytometry/Opto-Electronic Somatic Cell Counting. Pyronine Y-Methyl green stain or "New York modification" shall be used in the confirmatory test for Direct Microscopic Somatic Cell Counts in goat milk.

f. Any other tests that have been approved by the Food and Drug Administration or the Centers for Disease Control and Prevention to be equally accurate, precise, and practical.

g. All standards used in the development and use of drug residue detection methods designed for Grade "A" PMO monitoring programs will be referenced to a United States Pharmacopeia (USP) standard when available. When a USP standard is not available, then the original method shall define the standard to be used.

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M. Sampling Procedures - SMEDP guidance for sampling of milk shall be used:

1. When bacterial counts and temperature determinations are made of several samples of the same milk collected from the same producer on the same day, these values are averaged arithmetically, and the results recorded as the count or temperature determinations of the milk for that day. All counts and temperatures should be recorded on a milk-ledger form for dairy farms as soon as reported by the laboratory.

2. A computer or other information retrieval system may be used.

N. Sampling Raw Milk - When samples of raw milk are taken, they shall be randomly drawn following adequate agitation. Sampling procedures shall not contaminate the sample of remaining milk in the tank or other type of container. Each sample shall be labeled. The label shall contain identification, temperature when collected, and date and hour collected. The sample shall be immediately placed under refrigeration. Samples shall not be submerged in a coolant or handled in any manner which may cause contamination. All samples shall be maintained at 40°F (4°C) or below until analyzed. At no time shall the period of time between collection and analysis exceed forty eight (48) hours. Samples shall be collected by personnel who have been certified as sample collectors by Certified State Milk Sanitation Rating Officers.

### SECTION VII. Standards for Raw Milk for Human Consumption.

#### A. General

1. All Grade "A" raw milk for human consumption shall be produced to conform with the following chemical, bacteriological, and temperature standards, and the sanitation requirements of this section.

2. No process or manipulation other than appropriate refrigeration shall be applied to milk for the purpose of removing or deactivating microorganisms.

GRADE "A" RAW MILK FOR HUMAN CONSUMPTION	Temperature	Cooled to 10°C (50°F) or less within four (4) hours or less, of the commencement of the first milking, and to 7°C (45°F) or less within two (2) hours after milking, provided, that the blend temperature after the first and subsequent milkings does not exceed 10°C (50°F).
	Bacterial Limits	Individual producer milk not to exceed 10,000 per mL
	Drugs	No positive results on drug residue detection methods as referenced in Section VI - Laboratory Techniques.
	Somatic Cell Count*	Individual producer milk not to exceed 500,000 per mL.
	Coliform	Not to exceed 10 per gram.
	Pathogenic Organisms: **Escherichia Coli 0157:H7 **Salmonella **Listeria Monocytogenes **Campylobacter	Individual producer milk not to exceed zero (0) organisms



\*Goat Milk 1,000,000 per mL

## B. Sanitation Requirements for Grade A Raw Milk For Human Consumption.

### 1. Milk with Abnormalities

a. Lactating animals which show evidence of the secretion of milk with abnormalities in one (1) or more quarters, based upon bacteriological, chemical or physical examination, shall be milked last or with separate equipment and the milk shall be discarded.

b. Lactating animals that have been treated with, or have consumed, chemical, medicinal or radioactive agents, which are capable of being secreted in the milk and which, in the judgment of the Department, may be deleterious to human health, shall be milked last or with separate equipment and the milk disposed of as the Department may direct. (For applicability to automatic milking installations (AMI's), refer to Appendix Q of the PMO.)

c. Milk from lactating animals being treated with medicinal agents, which are capable of being secreted in the milk, shall not be offered for sale for such period as is recommended by the attending veterinarian or as indicated on the package label of the medicinal agent.

d. Milk from lactating animals treated with or exposed to insecticides not approved for use on dairy animals by the United States Environmental Protection Agency shall not be offered for sale.

e. The Department may require additional tests for the detection of milk with abnormalities as it deems necessary.

f. Bloody, stringy, off-colored milk, or milk that is abnormal to sight or odor, shall be handled and disposed of as to preclude the infection of other lactating animals and the contamination of milk utensils.

g. Lactating animals secreting milk with abnormalities shall be milked last or in separate equipment which effectively prevents the contamination of the wholesome supply. Milking equipment used on animals with abnormalities in their milk shall be maintained clean to reduce the possibility of re-infecting or cross infection of the dairy animals.

h. Equipment, utensils, and containers used for the handling of milk with abnormalities shall not be used for the handling of milk to be offered for sale, unless they are first cleaned and effectively sanitized.

i. Processed animal waste derivatives used as a feed ingredient for any portion of the total ration of the lactating dairy animal shall:

(1) be properly processed in accordance with at least those requirements contained in the Model Regulations for Processed Animal Wastes developed by the Association of American Feed Control Officials; and

(2) not contain levels of deleterious substances, harmful pathogenic organisms, or other toxic substances which are secreted in the milk at any level that may be deleterious to human health.

j. Unprocessed poultry litter and unprocessed recycled animal body discharges shall not be fed to lactating dairy animals.

### 2. Milking Barn, or Parlor Construction

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A milking barn or parlor shall be provided on all dairy farms in which the milking herd shall be housed during milking time operations.

a. All floors must be constructed of concrete or equal impervious material; convalescent (maternity) pens located in milking areas of stanchion-type barns may be used when they comply with the guidelines specified in Appendix C. III. of the PMO. Floors shall be easily cleaned and shall be graded to drain and maintained in good repair and free of excessive breaks or worn areas that may create pools.

b. Walls and ceilings shall be smooth, painted or finished in an approved manner, and are in good repair. Ceilings shall be dust-tight; approved materials include wood, tile, smooth-surfaced concrete, cement plaster, brick, or other equivalent materials with light colored surfaces. Walls, partitions, doors, shelves, windows, and ceilings shall be kept in good repair; and surfaces shall be refinished whenever wear or discoloration is evident. Whenever feed is stored overhead, ceilings shall be constructed to prevent the sifting of chaff and dust into the milking barn, stable or parlor. If a hay opening is provided from the loft into the milking portion of the barn, such opening shall be provided with a dust-tight door which shall be kept closed during milking operations.

c. Separate stalls or pens for horses, calves, and bulls shall be provided. Such portions of the barn that are not separated by tight partitions shall comply with all requirements of this item.

d. Natural and/or artificial light well distributed for day and/or night milking must be provided to insure that all surfaces and particularly the working areas will be plainly visible. The equivalent of at least ten (10) foot-candles (110 lux) of light in all working areas shall be provided.

e. Sufficient air space and air circulation to prevent condensation and excessive odors will be provided.

f. There will be no overcrowding which will be evidenced by the presence of calves, cows, or other barnyard animals in walks or feed alleys. Inadequate ventilation and excessive odors may also be evidence of an overcrowded barn. It is recommended that pit areas in parlors should be at least six (6) feet in width from overhang when cows are milked on two (2) sides, and six (6) feet working areas when single row of stalls. Ceiling height shall be at least seven (7) feet in areas where cows stand;

g. There must be dust-tight covered boxes or bins, or separate storage facilities for ground, chopped, or concentrated feed. A dust-tight partition, provided with doors that are kept closed except when in actual use, shall separate the milking portion of the barn from any feed room or silo in which feed is ground or mixed, or in which sweet feed is stored. When conditions warrant, the Department may approve a barn without four (4) walls extending from floor to roof, or a shed-type barn provided the requirement of Section VII.B.3. prohibiting animals and fowl from entering the barn is satisfied. Lactating animal-housing areas (stables without stanchions, such as loose housing stables, pen stables, resting barns, free stall barns, holding barns, loafing sheds, and wandering sheds) may be of shed-type construction, provided no milking is conducted therein. (These structures are classified as part of the cowyard under Section VII.B.4.)

### 3. Milking Barn, Stable or Parlor Cleanliness

a. The interior of the milking barn, stable, or parlor shall be kept clean. Floors, walls, ceilings, windows, pipelines, and equipment shall be free of filth and/or litter and shall be clean. Outside surfaces of pipeline systems located in the milking barn, stable, or parlor must be kept reasonably clean.

b. Gutter cleaners must be kept reasonably clean.

c. Swine and fowl shall be kept out of the milking barn.

d. All pens, calf stalls, and bull pens, if not separated from the milking barn, stable, or parlor, must be kept clean.

e. Feed shall be stored in a manner that will not increase the dust content of the air or interfere with the cleaning of the floor (as in covered, dust-tight boxes or bins). Open feed dollies or carts may be used for distributing the feed, but not storing food, in the milking area.

f. Milk stools, surcingles, and antikickers shall be kept clean and stored above the floor in a clean place in the milking barn, stable, parlor or milkhouse, when not in use.

g. Food mangers shall be kept clean so as not to attract flies; leftover feed in feed mangers must appear fresh and not be wet or soggy.

#### 4. Cowyard

a. The cowyard, which is interpreted to be the enclosed or unenclosed area approximately adjacent to the milking barn in which the lactating animals may congregate, including animal-housing areas and feed lots, shall be graded and drained and shall have no standing pools of water or accumulations of organic wastes.

b. Wastes from the barn or milkhouse shall not be allowed to pool in the cowyard. Depressions and soggy areas shall be filled, and lactating animal lanes kept reasonably dry. Cowyards which are muddy due to recent rains should not be considered as violating this item.

c. Manure, soiled bedding, and waste feed shall not be stored or permitted to accumulate in such a manner as to permit the soiling of lactating animals' udders and flanks. Animal-housing areas (stables without stanchions, such as loose-housing stables, pen stables, resting barns, holding barns, loafing sheds, wandering sheds, free-stall housing) shall be considered part of the cowyard. Manure packs shall be solid to the footing of the animal.

d. In loafing or lactating animal housing areas, lactating animal droppings and soiled bedding shall be removed, or clean bedding added, at sufficiently frequent intervals to prevent the soiling of the lactating animal's udder and flanks.

e. Cooling ponds shall be allowed provided they are constructed and maintained in a manner that does not result in the visible soiling of flanks, udders, bellies, and tails of lactating animals exiting the pond.

f. Waste feed shall not be allowed to accumulate.

g. Swine shall be kept out of the cowyard.

h. Cowyards shall be kept reasonably free of animal droppings. Animal droppings shall not be allowed to accumulate in piles that are accessible to the animals.

#### 5. Milkhouse or Room -- Construction and Facilities

a. A separate milkhouse or room of sufficient size shall be provided, in which the cooling, handling, and storing of milk and the washing, sanitizing, and storing of milk containers and utensils shall be conducted, except as provided for in Section VII.B.12 of this Regulation.

b. The milkhouse shall be provided with a smooth floor constructed of concrete or equally impervious material graded to drain and maintained in good repair. Floors shall be sloped to drains so that there are no pools of standing water. Liquid waste shall be disposed of in a sanitary manner; all floor drains shall be accessible and shall be trapped if connected to a sanitary sewer system.

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c. The joints between floors and walls shall be watertight.

d. The walls and ceilings shall be constructed of smooth material, in good repair, well painted, or finished in an equally suitable manner. Surfaces and joints shall be tight and smooth. Acceptable materials include sheet metal, tile, cement block, brick, concrete, cement plaster, or similar materials of light color. Surfaces up to splash height shall be non-absorbent and easily cleanable.

e. The milkhouse shall have adequate natural and/or artificial light and be well ventilated. A minimum of twenty (20) foot-candles (220 lux) of light shall be provided at all working areas from natural and/or artificial light for milkhouse operations.

f. The milkhouse shall be used for no other purpose than milkhouse operations; there shall be no direct opening into any barn, stable, parlor or into a room used for domestic purposes. A direct opening between the milkhouse and milking barn, stable or parlor is permitted when a tight-fitting self-closing solid door(s) hinged to be single or double acting is provided and opens outward from the milk room. A vestibule, if used, must comply with the applicable milkhouse construction requirements. Screened vents in the wall between the milkhouse and a breezeway, which separates the milkhouse from the milking parlor, are permitted, provided animals are not housed within the milking facility.

g. Water under pressure shall be piped into the milkhouse.

h. The milkhouse shall be adequately ventilated to minimize odors and condensation on floors, walls, ceilings, and clean utensils.

i. Vents, if installed, and lighting fixtures shall be located to preclude the contamination of bulk milk tanks or clean utensil storage area.

j. The milkhouse shall be equipped with a wash-and-rinse vat having at least two (2) compartments. Each compartment must be of sufficient size to accommodate the largest utensil or container used. The cleaning-in-place vat for milk pipelines and milk machines may be accepted as one (1) part of the two (2)-compartment vat; provided that the cleaning-in-place station rack in or on the vat and milking machine inflations and appurtenances are completely removed from the vat during the washing, rinsing, and/or sanitizing of other utensils and equipment. Where mechanical cleaning/recirculated systems eliminate the need for handwashing of equipment, the presence of the second wash vat compartment may be optional if so determined by the Department on an individual farm basis.

k. Each milkhouse shall be provided with facilities for heating water in sufficient quantity and to such temperatures for the effective cleaning of all equipment and utensils.

### 6. Milkhouse or Room – Cleanliness

a. The floors, walls, ceilings, windows, tables, shelves, cabinets, wash vats, non-product contact surfaces of milk containers, utensils, and equipment, and other milkhouse equipment shall be kept clean. Vestibules, if provided, shall be kept clean.

b. Only articles directly related to milkhouse activities shall be permitted in the milkhouse.

c. The milkhouse shall be kept free of trash, animals, and fowl.

d. Incidental articles such as desks, refrigerators, and storage cabinets may be in the milkhouse provided they are kept clean, ample space is available to conduct the normal operations in the milkhouse, and they will not cause contamination of the milk.

## 7. Toilet

a. Every dairy farm shall be provided with one (1) or more toilets, conveniently located and properly constructed, operated, maintained and utilized in a sanitary manner. There shall be at least one (1) flush toilet connected to a public sewer system or to an individual sewage-disposal system or a chemical toilet, earth pit privy or other type of privy. Such sewerage systems shall be constructed and operated in accordance with applicable Department regulations and statutes.

b. The waste shall be inaccessible to flies and shall not pollute the soil surface or contaminate any water supply. Vents of earth pits shall be screened.

c. No privy shall open directly into the milkhouse.

d. The toilet room, including all fixtures and facilities, shall be kept clean and free of insects and odors.

e. Where flush toilets are used, doors to toilet rooms shall be tight and self-closing. All outer openings in toilet rooms shall be screened or otherwise protected against the entrance of insects.

## 8. Water Supply

a. Water for milkhouse and milking operations shall be from an approved supply properly located, protected, and operated, and shall be easily accessible, adequate, and of a safe, sanitary quality.

b. No cross-connection shall exist between a safe water supply and any unsafe or questionable water supply, or any other source of pollution.

c. There shall be no submerged inlets through which a safe water supply may be contaminated.

d. The well or other source of water shall be located and constructed in such a manner that neither underground nor surface contamination from any sewerage systems, privy, or other source of pollution can reach such water supply.

e. New individual water supplies and water supply systems that have been repaired or otherwise become contaminated shall be thoroughly disinfected before being placed in use. The supply shall be made free of the disinfectant by pumping to waste before any sample for bacteriological testing shall be collected.

f. All containers and tanks used in the transportation of water shall be sealed and protected from possible contamination. These containers and tanks shall be subjected to a thorough cleaning and a bacteriological treatment prior to filling with potable water to be used at the dairy farm. To minimize the possibility of contamination of the water during its transfer from the potable tanks to the elevated or groundwater storage at the dairy farm, a suitable pump, hose, and fittings shall be provided. When the pump, hose and fittings are not being used, the outlets shall be capped and stored in a suitable dust-proof enclosure to prevent their contamination. The storage tank at the dairy farm shall be constructed of impervious material provided with a dust and rainproof cover, and provided with an approved-type vent and roof hatch. All new reservoirs, or reservoirs which have been cleaned, shall be disinfected prior to placing them into service.

g. Samples for bacteriological examination shall be taken upon the initial approval of the physical structure based upon the requirements of this Regulation, when any repair or alteration of the water supply system has been made, and at least every three (3) years, provided that:

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(1) water supplies with buried well casing seals installed prior to the adoption of this section shall be tested at intervals no greater than six (6) months apart. Whenever such samples indicate either the presence of bacteria of the coliform group, or whenever the well casing, pump or seal needs replacing or repair, the well casing and seal shall be brought above the ground surface and shall comply with all other applicable construction criteria of this section.

(2) when water is hauled to the dairy farm, such water shall be sampled for bacteriological examination at the point of use and submitted to a laboratory at least four (4) times in separate months during any consecutive six (6) months.

h. Bacteriological examinations shall be conducted in a laboratory acceptable to the Department.

i. To determine if water samples have been taken at the frequency established in this section, the interval shall include the designated period plus the remaining days of the month in which the sample is due.

j. Current records of water test results shall be retained on file with the Department or as the Department directs.

### 9. Utensils and Equipment – Construction

a. All multiuse containers, equipment, and utensils that are exposed to milk or milk products, or from which liquids may drip, drain or be drawn into milk or milk products, and used in the handling, storage, or transportation of milk shall be made of smooth, non-absorbent, corrosion-resistant, nontoxic materials, and shall be constructed to be easily cleaned. Acceptable materials include:

(1) stainless steel of the AISI (American Iron and Steel Institute) 300 series, or equally corrosion-resistant, nontoxic metal;

(2) heat-resistant glass; or

(3) plastic or rubber and rubber-like materials which are relatively inert, resistant to scratching, scoring, decomposition, crazing, chipping, and distortion, under normal use conditions; are nontoxic, fat resistant, relatively nonabsorbent, relatively insoluble, do not release component chemicals or impart flavor or odor to the product, and which maintain their original properties under repeated use conditions.

b. All containers, utensils, and equipment shall be in good repair and shall be free of breaks, corrosion, pits, cracks or inclusions.

c. All milk pails used for hand milking and stripping shall be seamless and of the hooded type. Seamless hooded pails having an opening not exceeding one-third the area of that of an open pail of the same size shall be used for hand milking and hand stripping.

d. Strainers, if used, shall be constructed of perforated metal design, or single-service strainer media should be utilized. Multiple-use woven material shall not be used for straining milk.

e. All single-service articles shall be manufactured, packaged, transported, stored, and handled in a sanitary manner and shall comply with the applicable requirements of Section VIII. Articles intended for single-service use shall not be reused.

f. Farm holding/cooling tanks, welded sanitary piping, and transportation tanks shall comply with the applicable requirements of Section VII.B.9.a, g and h.

g. Mechanically cleaned milk pipelines and return-solution lines shall be self-draining. If gaskets are used, they shall be self-positioning and of material meeting specifications described in Section VII.B.9.a.(3), and shall be of such design, finish, and application as to form a smooth, flush interior surface. If gaskets are not used, all fittings shall have self-positioning faces designed to form a smooth, flush interior surface. All interior surfaces of welded joints in pipelines shall be smooth and free of pits, cracks, and inclusions.

h. Mechanically cleaned milk pipelines and return solution lines installed after the effective date of this Regulation shall have welded ferrule/flange fittings; rolled fittings shall not be used.

i. Detailed plans for cleaned-in-place pipeline systems shall be submitted to the Department for written approval prior to installation. No alteration or addition shall be made to any milk pipeline system without prior written approval of the Department.

j. All milking machines, including heads, milk claws, milk tubing, and other milk-contact surfaces shall be constructed to be easily cleaned and inspected. Pipelines, milking equipment, and appurtenances that require a screw driver or special tool shall be considered easily accessible for inspection, provided the necessary tools are available at the milking house. Milking systems shall not have components incorporated in the return solution lines, that by design do not comply with the criteria for product-contact surfaces, such as:

- (1) ball type plastic valves;
- (2) plastic tees with barbed ridges to better grip the plastic or rubber hoses; and
- (3) PVC water type piping.

k. Milk cans shall have umbrella-type lids.

l. Farm holding/cooling tanks, welded sanitary piping, and transportation tanks shall comply with the applicable requirements of this Regulation.

m. During filling, flexible plastic/rubber hoses may be used between the fill valves of bottom fill and top fill bulk milk storage tanks, when needed for functional purposes. Such hoses shall be drainable, be as short as practical, have sanitary fittings, and be supported to maintain uniform slope and alignment. The end fittings of such hoses shall be permanently attached in such a manner that will assure a crevice-free joint between the hose and the fitting and can be cleaned by mechanical means. The hoses shall be included as part of a mechanical cleaning system.

n. Transparent flexible plastic tubing (up to 150 feet in length) used in connection with milk transfer stations shall be considered acceptable if it meets the "3-A Sanitary Standards for Multiple-Use Plastic Materials Used as Product Contact Surfaces for Dairy Equipment, Number 20" and if it remains sufficiently clear that the interior surfaces can be properly inspected. Short lengths of flexible plastic tubing (eight [8] feet or less) may be inspected for cleanliness by sight or by use of a "rod". The transparency or opacity of such tubing under this condition is not a factor in determining cleanliness.

NOTE: 3-A Sanitary Standards for Dairy Equipment are promulgated jointly by the Sanitary Standards Subcommittee of the Dairy Industry Committee, the Committee on Sanitary Procedure of the International Association for Food Protection, and the Milk Safety Branch, Food and Drug Administration, Public Health Service, Center for Food Safety and Applied Nutrition, Department of Health and Human Services. Equipment manufactured in conformity with 3-A Sanitary Standards complies with the sanitary design and construction standards of this Regulation.

o. Whenever air under pressure is used for the agitation or movement of milk, or is directed at a milk-contact surface, it shall be free of oil, dust, rust, excessive moisture, extraneous materials and odor.

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### 10. Utensils and Equipment -- Cleaning

a. The product-contact surfaces of all multiuse containers, equipment, and utensils used in the handling, storage, or transportation of milk shall be cleaned after each milking or once every twenty-four (24) hours for continuous operations.

b. There shall be a separate wash manifold for all mechanically cleaned milk pipelines in all new or extensively remodeled facilities.

### 11. Utensils and Equipment – Sanitization

a. The product-contact surfaces of all multiuse containers, equipment, and utensils used in the handling, storage or transportation of milk shall be sanitized before each usage.

b. Sanitization shall be achieved by use of the following methods:

(1) Complete immersion in hot water at a temperature of at least 77°C (170°F), for at least five (5) minutes, or exposure to a flow of hot water at a temperature of at least 77°C (170°F), as determined by the use of a suitable accurate thermometer (at the outlet) for at least five (5) minutes;

(2) Complete immersion for at least one (1) minute in or exposure for at least one (1) minute to a flow of a chemical sanitizer of acceptable strength. All product-contact surfaces must be wetted by the sanitizing solution, and piping so treated must be filled. Sanitizing sprays may be used. Chemical solutions, once used, shall not be reused for sanitizing but may be reused for other purposes; or

(3) By any method which has been demonstrated to be equally effective.

### 12. Utensils and Equipment – Storage

a. All containers, utensils, and equipment used in the handling, storage, or transportation of milk, unless stored in sanitizing solutions, shall be stored to assure complete drainage and shall be protected from contamination prior to use, except that pipeline milking equipment such as milker claws, inflations, weigh jars, meters, milk hoses, milk receivers, tubular coolers, plate coolers and milk pumps which are designed for mechanical cleaning and other equipment, as accepted by FDA, which meets these criteria, may be stored in the milking barn or parlor, provided this equipment is designed, installed and operated to protect the product and solution-contact surfaces from contamination at all times.

b. Strainer pads, parchment papers, gaskets, and similar single-service articles shall be stored in a suitable container or cabinet and protected against contamination.

### 13. Utensils and Equipment -- Handling

After sanitization, all containers, utensils, and equipment shall be handled in a manner that prevents contamination of any product-contact surface.

a. Sanitized product-contact surfaces, including farm cooling holding tank openings and outlets, shall be protected against contact with unsanitized equipment and utensils, hands, clothing, splash, condensation, and other sources of contamination.

b. Any sanitized product-contact surface which has been otherwise exposed to contamination shall be cleaned and sanitized before being used.



14. Milking -- Flanks, Udders, and Teats

- a. Milking shall be done in the milking barn or parlor.
- b. The flanks, udders, bellies, and tails of all milking cows shall be free from visible dirt. All brushing shall be completed prior to milking.
- c. The udders and teats shall be cleaned and treated with a sanitizing solution just prior to the time of milking, and shall be relatively dry before milking. Sanitizing solutions shall be used in accordance with manufacturer specifications and recommendations.
- d. Wet hand milking is prohibited.
- e. Flanks, bellies, tails and udders shall be clipped as often as necessary to facilitate cleaning of these areas.

15. Drug and Chemical Control

a. Cleaners and Sanitizers

(1) Cleaners and sanitizers shall be stored in dedicated end-use containers which properly identify the contents.

(2) Bulk cleaners and sanitizers that are transferred from the manufacturer's or distributor's container shall be stored only in an end-use container that is properly labeled with the container's contents.

(3) The manufacturer's or distributor's label for each cleaner and sanitizer, including the product name, chemical description, use directions, precautionary and warning statement, first aid instructions, container storage and maintenance instructions and the name and address of the manufacturer or distributor, shall be maintained on the premises and be readily accessible for reference or inspection.

b. Drugs

(1) Drugs shall be properly labeled to include the name and address of the manufacturer or distributor for over-the-counter (OTC) drugs or veterinary practitioner dispensing the product for prescription and extra label use drugs. Drug labels shall also include:

- (a) directions for use and prescribed withholding times;
- (b) cautionary statements, if needed; and
- (c) active ingredient(s) in the drug product.

(2) Drugs dispensed by a pharmacy on the order of a veterinarian shall have labeling that includes the name of the prescribing veterinarian and the name and address of the dispensing pharmacy; the address of the prescribing veterinarian may be included on the labeling.

(3) Drugs intended for treatment of non-lactating dairy animals shall be segregated from those drugs used for lactating animals in separate shelves in cabinets, refrigerators or other storage facilities

(4) Unapproved drugs shall not be used and shall not be stored in the milkhouse, milking barn, stable or parlor.

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(5) Animal drugs and drug administration equipment shall be stored in such a way that milk, milking equipment, wash vats and hand sinks are not subject to contamination by the drugs.

(6) Equipment used to administer drugs shall not be cleaned in the wash vats.

NOTE: Topical antiseptics and wound dressings, unless intended for direct injection into the teat, vaccines and other biologics, and dosage form vitamins and/or mineral products are exempt from labeling and storage requirements, except when it is determined that they are stored in such a manner that they may contaminate the milk or milk product-contact surfaces of containers, utensils or equipment.

### 16. Milking -- Transfer and Protection of Milk

a. Each pail or container of milk shall be taken immediately from the milking barn or parlor to the milkhouse. No milk shall be strained, poured, transferred, or stored outside the milkhouse.

b. The milk receiving receptacle shall be raised above the floor.

### 17. Personnel

a. Adequate handwashing facilities shall be provided, including a lavatory fixture with hot and cold, or warm running water, soap or detergent, and individual sanitary towels, or other approved hand drying devices, convenient to the milkhouse, milking barn, stable, parlor and flush toilet, and shall be used for no other purpose. Utensil wash and rinse vats shall not be considered as handwashing facilities.

b. Hands shall be washed clean and dried with an individual sanitary towel or other approved hand drying device immediately before milking, before performing any milkhouse function, and immediately after the interruption of any of these activities. Milkers shall wear clean outer garments while milking or handling milk, milk containers, utensils, or equipment.

c. No person who by medical examination or supervisory observation is shown to have or appears to have an illness, open lesion (including boils, sores, or infected wounds) or any other abnormal source of microbial contamination shall work at any dairy farm in any capacity that brings them into contact with the production, handling, storage, or transportation of milk, containers, equipment, and/or utensils. Any producer or distributor of milk who suspects that any employee has contracted any disease in a communicable form or has become a carrier of such disease shall notify the Department immediately.

d. When reasonable cause exists to suspect the possibility of transmission of infection or disease from any person concerned with the handling of milk, the Department may:

(1) order the immediate exclusion of that person from milk handling;

(2) order the immediate exclusion of the milk supply concerned from distribution and consumption;

(3) order adequate medical and bacteriological examination of the person to determine if the infection or disease is present; or

(4) order any combination of the previous measures.

### 18. Cooling

a. Raw milk shall be cooled to 10°C (50°F) or less within four (4) hours or less of the commencement of the first milking, and to 7°C (45° F.) or less within two (2) hours after the completion of milking, and shall

be maintained at that temperature, including during packaging and transportation; except that, the blend temperature after the first milking and subsequent milking shall not exceed 10°C (50°F).

b. Recirculated cold water that is used in plate or tubular coolers or heat exchangers shall be from a safe source and protected from contamination. Such water shall be tested semiannually and shall comply with the bacteriological standards set by the Department.

c. All farm bulk milk tanks manufactured after January 1, 2000, shall be equipped with an approved temperature-recording device.

(1) The recording device shall be operated continuously and be maintained in a properly functioning manner. Circular charts shall not overlap.

(2) The recording device shall be verified every six (6) months and documented in a manner acceptable to the Department using an accurate (+/-1°C (2°F)) thermometer that has been calibrated by a traceable standard thermometer, within the past six (6) months, with the results and date recorded and the thermometer being properly identified, or by using a traceable standard thermometer that has been calibrated within the last year.

(3) Recording thermometer charts shall be maintained on the premises for a period of a minimum of six (6) months and available to the Department.

(4) The recording thermometer should be installed in an area convenient to the milk storage tank and acceptable to the Department.

(5) The recording thermometer sensor shall be located to permit the registering of the temperature of the contents when the tank contains no more than ten (10) percent of its calibrated capacity.

(6) The recording thermometer shall comply with the current technical specifications for tank recording thermometers.

(7) A recording thermometer and/or any other device that meets the intent of this Regulation and technical specifications, and is acceptable to the Department, can be used to monitor/record the bulk tank temperature.

(8) The recording thermometer charts shall properly identify the producer, date, and signature of the person removing the chart.

#### 19. Vehicles.

Vehicles used to transport milk shall be constructed and operated to protect their contents from sun, freezing, and contamination. Such vehicles shall be kept clean, inside and out; and no substance capable of contaminating milk shall be transported with milk.

#### 20. Insect and Rodent Control.

a. Effective measures shall be taken to prevent the contamination of milk, containers, equipment, and utensils by insects and rodents, and by chemicals used to control such vermin.

b. Milkrooms shall be free of insects and rodents.

c. Surroundings shall be kept neat, clean, and free of conditions which might harbor or be conducive to the breeding of insects and rodents.

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- d. Feed shall be stored in such a manner that it will not attract birds, rodents or insects.
- e. Manure packs in loafing areas, stables without stanchions, pen stables, resting barns, wandering sheds, and free-stall housing shall be properly bedded and managed to prevent fly breeding.
- f. Milkrooms shall be effectively screened or otherwise protected against the entrance of vermin, including hose ports and floor drains through walls.
- g. Outer milkhouse doors shall be tight and self-closing. Screen doors shall open outward.
- h. Only pesticides approved for use by the Department and/or registered with the U.S. Environmental Protection Agency shall be used for insect and rodent control.
- i. Pesticides shall be used only in accordance with manufacturer's directions.

### SECTION VIII. Bottling, Packaging, Container Filling and Container Closure/Sealing.

#### A. Bottling, Packaging and Container Filling.

- 1. Bottling, packaging, and container filling of milk shall be done at the place of production in a sanitary manner by approved mechanical equipment. Bottling, packaging and container filling of milk may be conducted in the milkhouse or room.
- 2. Bottling or packaging machine supply tanks and bowls shall have covers which are smooth and easily cleanable and shall be constructed to prevent any contamination from reaching the inside of the filler tank or bowl. All covers shall be in place during operation.
- 3. A drip deflector shall be installed on each filler valve. The drip deflector shall be designed and adjusted to divert condensation away from the open container.
- 4. All containers, seals and caps shall be from an approved Interstate Milk Shippers listed facility.
- 5. All containers, seals and caps shall be handled in a sanitary manner and protected against undue exposure during the operation.
- 6. When any lubricant is applied to the filler equipment or other milk contact surfaces, the lubricant shall be food grade and applied in a sanitary manner.
- 7. Containers shall be closed immediately after being filled.

#### B. Container Closure/Sealing.

- 1. All container caps, sealers and closures shall be stored in a clean, dry place protected from insects, rodents, dust, splash, or other contamination.
- 2. Only new containers, container caps, sealers and closures shall be used. Reusable glass containers must be approved by the Department prior to use.
- 3. All container closure/sealing shall be done at the place of production in a sanitary manner by approved mechanical equipment.
- 4. Hand capping or sealing of containers is prohibited.

5. If suitable mechanical equipment for the capping or closing of specific container(s) of 12.8 liters (three [3] gallons) or more is not available, other methods which eliminate all possibility of contamination may be approved by the Department. Approval of such methods shall be obtained prior to beginning operation.

6. Bottles and packages which have been imperfectly capped, sealed or closed shall have the contents emptied immediately into approved sanitary containers that are protected from contamination and maintained at 7°C (45°F) or less; when handled and stored properly, the contents may be repackaged in new containers at a later time.

7. All caps, seals and closures shall be designed and applied so that the sealed container is tamper-evident (removal cannot be made without detection), and the pouring lip shall be protected to at least its largest diameter.

8. Caps, sealers and closures shall not be left in the equipment at the end of an operating period. Caps, sealers and closures remaining in the chute between the hopper and the capping device shall be discarded.

9. Loose caps, sealers and closures may be returned to storage by enclosing them in a clean, protective wrap, plastic bag or container approved by the Department.

#### SECTION IX. Animal Health.

A. All milk for human consumption within the State of South Carolina shall be from healthy animals. Milk from unhealthy animals shall not be offered for sale, be given away, or combined with other milk, for human consumption.

B. All animals producing milk for human consumption shall be tested for brucellosis and tuberculosis every twelve (12) months. Animals showing positive by lesions or a positive test shall be reported to the Department, and:

1. Shall be separated, and kept separate, from the remainder of the herd;

2. A certificate, identifying each animal, signed by a licensed veterinarian and the director of the laboratory making the test, shall be filed with the Department;

3. Shall be retested by a licensed veterinarian at a frequency specified by the United States Department of Agriculture (USDA), and test results shall be filed with the Department; and

4. Disposition of diseased animals shall be conducted in accordance with guidelines published by the USDA and shall be reported to the Department.

C. For diseases other than brucellosis and tuberculosis, the Department shall require such physical, chemical, or bacteriological tests as it deems necessary. The diagnosis of other diseases in dairy animals shall be based upon the findings of a licensed veterinarian. Any diseased animal disclosed by such test(s) shall be disposed of as the Department directs.

D. Animals shipped into South Carolina for additions to herds shall have been tested for tuberculosis and brucellosis within thirty (30) days prior to being brought into the state, except that this shall not apply, with regard to brucellosis, to those cattle that have been vaccinated for brucellosis and are under thirty (30) months of age.

E. Records supporting the tests required in this section shall be available to the Department and be validated with the signature of a licensed veterinarian.

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### SECTION X. Recall.

Each producer of raw milk for human consumption shall develop and maintain procedures for the notification of regulatory officials, consumer notification, and product recall, and shall implement any of these procedures as necessary with respect to any product for which the producer or the Department knows or has reason to believe circumstances exist that may adversely affect its safety for the consumer. If the Department determines, based upon representative samples, risk analysis, information provided by the producer, and other information available to the Department, that the circumstances present an imminent hazard to the public health and that a form of consumer notice or product recall can effectively avoid or significantly minimize the threat to public health, the Department may order the producer to initiate a level of product recall or, if appropriate, issue a form of notification to customers. The producer shall be responsible for disseminating the notice in a manner designed to inform customers who may be affected by the problem.

### SECTION XI. Enforcement.

#### A. General.

This Regulation is issued under the authority of Sections 44-1-140(3) and 44-1-150, S.C. Code of Laws, 1976, as amended. It shall be enforced in accordance with interpretations and public health reasons approved by the Department.

#### B. Suspension of Permit

1. The Department may, without warning, notice or hearing, suspend the permit of any producer or distributor of raw milk whenever, in the opinion of the Department, an imminent health hazard exists. An imminent health hazard includes, but is not limited to, violations of bacterial, coliform, somatic cell, cooling temperature, or drug residue test standards, or the presence of pathogenic organisms. Upon such suspension of permit, all bottling and/or distribution activities shall immediately cease and remain ceased while the permit is suspended. The suspension of permit shall remain in effect until the imminent health hazard has been corrected to the satisfaction of the Department.

2. The Department may otherwise temporarily suspend a permit for a violation of this Regulation when:

- a. it has reason to believe that a public health hazard exists;
- b. the permit holder has violated any of the requirements of this Regulation;
- c. the permit holder has interfered with the Department in the performance of its duties, including willful refusal to allow an authorized inspection/audit; or
- d. the permit holder exhibits hostile behavior toward a representative of the Department during the performance of duty.

3. A suspension of permit shall remain in effect until any violation has been corrected to the satisfaction of the Department.

#### C. Revocation of Permit. The Department may revoke a permit when:

1. the permit holder has repeated suspension(s); or
2. the permit holder physically threatens or intimidates a representative of the Department.

#### D. Reinstatement of Permit

1. Any producer whose permit has been suspended may make written application for the reinstatement of the permit. Any application for the reinstatement of a suspended permit must be in writing and must address all violations underlying the suspension and explain the steps taken to correct those violations.

2. Within one week of the receipt of such an application, the Department shall make an inspection of the applicant's establishment, and as many additional inspections thereafter as are deemed necessary, to determine that the applicant's establishment is complying with the requirements. When the findings justify, the permit shall be reinstated.

3. When the permit suspension has been due to a violation of any of the bacteriological, coliform, somatic cell, cooling temperature, or drug residue test standards, the Department may issue a temporary permit whenever resampling of the herd's milk supply indicates the milk supply to be within acceptable limits as prescribed in Section VII. Samples shall then be taken at the rate of not more than two (2) per week on separate days within a three(3)-week period, and the Department shall reinstate the permit upon compliance with the appropriate standards as determined in accordance with Section VI of this Regulation.

4. When a permit has been revoked, the holder of the revoked permit may make written application for a new permit; however, the Department may deny a new permit based upon past history.

#### E. Other Enforcement Provisions

1. In addition to the authority to suspend and revoke permits, the Department may seek enforcement and issue civil penalties in accordance with SC Code Ann. Section 44-1-150, S.C. Code of Laws, 1976, as amended. The Department shall have the authority to assess and suspend civil penalties if the violations of this Regulation are corrected in a period of time established by the Department.

2. A Department decision involving the issuance, denial, renewal, modification, suspension, or revocation of a permit may be appealed by an affected person with standing pursuant to applicable law, including S.C. Code Title 44, Chapter 1 and Title 1, Chapter 23. Any person to whom an order or enforcement letter is issued may appeal it pursuant to applicable law, including S.C. Code Title 44, Chapter 1 and Title 1, Chapter 23.

#### SECTION XII. Severability Clause.

Should any section, paragraph, sentence, clause or phrase of this Regulation be declared unconstitutional or invalid for any reason, the remainder of this Regulation shall not be affected thereby.

#### **Fiscal Impact Statement:**

The Department estimates there will be no new costs imposed on the State or its political subdivisions by this Regulation.

#### **Statement of Need and Reasonableness:**

The Statement of Need and Reasonableness was determined by staff analysis pursuant to S.C. Code Section 1-23-115(C)(1)-(3) and (9)-(11):

#### DESCRIPTION OF REGULATION:

Purpose: These amendments include food safety standards for raw milk, permit requirements, sampling and reporting requirements, laboratory sample testing fees, labeling standards, and enforcement procedures.

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Amendments will clarify the regulation for raw milk, and will remove references to pasteurized milk, which is covered by R.61-34.1. Other related editorial and stylistic changes have been made as necessary to improve the overall quality of the regulation.

**Legal Authority:** The legal authorities for R.61-34 are Sections 44-1-140 et seq., and 44-1-150, S.C. Code of Laws, 1976, as amended.

**Plan for Implementation:** The proposed amendments will take effect upon approval by the Board and the General Assembly and publication in the *State Register*. The Department is already regulating the production and sale of raw milk; these amendments will clarify the regulation. The regulated community will be provided copies of the regulation.

### DETERMINATION OF NEED AND REASONABLENESS OF THE REGULATION BASED ON ALL FACTORS HEREIN AND EXPECTED BENEFITS:

The regulation will ensure that consumers are receiving relatively safe, high quality Grade “A” raw milk for human consumption; the regulation addresses sanitation standards for milk production facilities (including farms), and addresses food safety and packaging requirements associated with raw milk.

Notice of the proposed changes and opportunity for public comment was published in the *State Register* as required by the Administrative Procedures Act. Notice and opportunity for public input was expanded by providing additional notice of the proposed revisions on the Department’s Regulatory Information website in its *DHEC Regulation Development Update*; by providing copies of the proposed changes to all raw milk producers currently permitted by the Department; and by inviting any interested person to attend a DHEC staff conducted informational forum for the purpose of asking questions, clarifying issues and contributing public input. Comments received at the informational forum and during the public comment period were considered, and changes in the regulation were made pursuant to those comments where reasonable. The Department’s response to each comment was addressed and provided at the public hearing conducted by the Department’s Board pursuant to S.C. Code Ann. Section 1-23-111. No one appeared before the Board at the public hearing to speak in opposition to the proposed revisions of Regulation 61-34, and the proposed amendments that included modifications made pursuant to public comment were approved by the Department’s Board on December 11, 2008, for legislative review.

### DETERMINATION OF COSTS AND BENEFITS:

There are no anticipated new costs associated with the implementation of this regulation. There will be a benefit to South Carolina’s environment and the health of its citizens by ensuring that consumers are receiving relatively safe, high quality Grade “A” raw milk for human consumption.

### UNCERTAINTIES OF ESTIMATES:

None.

### EFFECT ON ENVIRONMENT AND PUBLIC HEALTH:

The regulation will ensure that consumers are receiving relatively safe, high quality Grade “A” raw milk for human consumption.

### DETRIMENTAL EFFECT ON THE ENVIRONMENT AND PUBLIC HEALTH IF THE REGULATION IS NOT IMPLEMENTED:

Not implementing the regulation will cause a decrease in the sanitary standards in Grade “A” raw milk for human consumption; this decrease in sanitary standards could have a detrimental effect on the health of South



Carolina’s citizens and visitors by increasing the risks of disease and illness associated with raw milk for human consumption. Not regulating the production and sale of raw milk for human consumption will likely lead to a “black market” or “underground market” for the product.

**Statement of Rationale:**

Raw milk for human consumption is in demand in South Carolina. Rather than ignoring its production and sale, the Department has promulgated amendments of R.61-34 to regulate the production and sale of the product to ensure that consumers are receiving relatively safe Grade “A” raw milk for human consumption.

Document No. 4030  
**DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL**  
 CHAPTER 61  
 Statutory Authority: 1976 Code Sections 44-1-60, 44-1-140(7), and 44-55-2310 et seq.

61-51. Public Swimming Pools

**Synopsis**

R.61-51 was enacted to protect public health and safety when recreating in public swimming pools. These amendments incorporate updated design and construction requirements. There are several operation and maintenance changes that are necessary to improve safety in and around the pool as well as ease of maintenance. These amendments address multiple issues dealing with the construction and operation of public swimming pools in South Carolina. The amendments are needed to provide greater flexibility for the building of public swimming pools and are necessary in order to provide consistently safe and healthy recreation for our citizens and visitors when they choose to swim in public pools throughout the State.

See Discussion of Revisions below and Statements of Need and Reasonableness and Rationale herein.

Discussion of Revisions:

Note: The sections cited in this listing reflect the sections as they are numbered in the underline/overstrike version of the regulation.

Relocation of specific diagrams could not be shown by strikeout and underline in the text as explained in the instructions of the text of the amendments.

**Issue 1) Design criteria and plans that meet Federal and/or State recommendations and requirements.**

<b><u>SECTION</u></b>	<b><u>CHANGE</u></b>
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R.61-51.A.3	Added language for age clarification.
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R.61-51.A.5	Removed reserved and added new definition.
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R.61-51.A.43	Added language to exempt duplexes from regulation.
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R.61-51.A.43(e)	Added language to clarify subdivision pools with slides.
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R.61-51.A.45(g)

Added language to establish Type G pools.

R.61-51.A.62

Added language to clarify vertical.

R.61-51.A.67

Added language to define “zone”.

R.61-51.B.4(a)

Added language to require plans kept on job site during construction.

R.61-51.B.5(c)

Added language to require fee submittal with Change Order Requests.

R.61-51.C.6(b)

Added requirements for using concrete pavers as decking.

R.61-51.C.6(f)

Changed requirement to lengthen hose bib distances to one hundred 100 feet and added language to establish backflow prevention requirements.

R.61-51.C.7

Revised language on depth markers.

R.61-51.C.8(a)

Revised language for fencing requirements for pools with slides.

R.61-51.C.8(b)

Revised language for fencing requirements for pools with slides.

R.61-51.C.9(a)

Added language for clarification on door sizing, light switches, floor drains, and sumps and added language to establish requirements for an emergency disconnect for pumps.

R.61-51.C.9(c)

Added language to require installation per manufacturers recommendations.

R.61-51.C.10

Revised language on chemical storage room requirements.

R.61-51.C.11

Revised language to require equipment compliance with NEC.

R.61-51.C.12

Added and revised language to exclude cell and cordless phones to be used as emergency notification devices.

R.61-51.C.15(c)

Added language to establish requirements for sump pits.

R.61-51.C.16

Added language to establish requirements for dechlorination.

R.61-51.C.17

Added language to require approvals for discharge.

R.61-51.C.21

Added language to allow ultraviolet or ozone disinfection.

R.61-51.C.25(a)

Added and revised language for inlets and outlets.

R.61-51.C.26(b)(vii)

Added language to establish requirements for using concrete pavers.

R.61-51.C.27(b)

Added language to clarify location of life saving equipment.

R.61-51.C.27(d)

Added language to clarify which pools need first aid kits.

R.61-51.C.28(a)

Added language to clarify that pool signs be visible.

R.61-51.C.28(b)

Added language to clarify that pool signs be visible.

R.61-51.C.28(b)(xvi)

Added language to establish life saving equipment location on pool rules sign.

R.61-51.C.29(a)

Added language for clarification of fire protection measures.

R.61-51.C.30

Added language to clarify overflow requirements.

R.61-51.C.35

Revised language on step risers, step edge stripes, and handrails and added language establishing requirements on tanning ledges.

R.61-51.C.39

Added language establishing design requirements for surge tanks.

R.61-51.D

Changed section title to include Type G pools in the requirements.

R.61-51.D.2.(a)

Revised language regarding pool depth slope.

R.61-51.D.2.(a)(ii)

Revised language for consistency.

R.61-51.D.2(d)(i)

Added and revised language on skimmers.

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R.61-51.D.2(k)

Added language establishing requirements for vanishing edge pools.

R.61-51.D.7

Added language establishing minimum pool width.

R.61-51.D.8

Added language establishing requirements for Type G pools.

R.61-51.E.3

Added language requiring equipment to be installed per manufacturers recommendations.

R.61-51.I.1

Revised language to add interior pool coating to list of items requiring a change order request.

**Issue 2) Safety requirements that ensure that the public, maintenance, and repair staff are aware and protected from potential hazards.**

### SECTION

### CHANGE

R.61-51.J.8

Revised language on equipment room requirements.

R.61-51.J.11(a)

Revised language regarding life guards.

R.61-51.J.11(b)

Revised language for consistency.

R.61-51.J.11(d)

Revised language for life saving equipment location.

R.61-51.J.11(g)

Revised language prohibiting cell or cordless telephones to be used as emergency notification devices.

R.61-51.J.14(a)

Revised language on water quality testing.

R.61-51.J.14(d)

Revised language for consistency.

R.61-51.J.14(e)

Added language requiring CDC protocols to be used during biological contamination incidents.

R.61-51.J.15

Added language establishing maintenance requirements.

R.61-51.J.16(a)

Revised language on temperature to include spa's, lazy rivers, and other pool types.

R.61-51.J.18(b)

Revised language on recording operator visits in bound log books.

R.61-51.J.19

Added and revised language requiring depth markers be brought up to current regulations when recoating or resurfacing the pool interior or deck.

R.61-51.J.21(a)

Revised language on accessibility of pools for inspections.

R.61-51.J.21(b)

Revised language on responsibility for correction of items not in compliance.

R.61-51.J.22

Added and revised language regarding pool closures.

R.61-51.J.24

Revised language on variance requests.

**Issue 3) Revise specific chemical levels for better treatment and other health related issues.**

**SECTION**

**CHANGE**

R.61-51.J.14(b)

Changed the water chemistry requirements.

R.61-51.J.14(c)

Added language reducing cyanuric acid levels over three (3) years.

**Issue 4) Revise to include acceptance of operator certification by the Department.**

**SECTION**

**CHANGE**

R.61-51.J.18(a)

Revised language allowing operator licensing by a party approved by the Department.

**Issue 5) Stylistic changes which may include corrections for: readability, grammar, punctuation, typography, codification, references, and language style.**

**SECTION**

**CHANGE**

R.61-51.A.6

Added language for clarification.

R.61-51.A.7 - A.63

Renumber definitions.

R.61-51.B.7

Revised language to ensure consistency.

R.61-51.C.4

Revised language for consistency.

R.61-51.C.13

Revised language for consistency.

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R.61-51.C.14

Revised language for consistency.

R.61-51.C.18

Revised language for consistency.

R.61-51.C.20

Revised language for consistency.

R.61-51.C.28(c)

enumbered citation for consistency.

R.61-51.C.28(d)

Renumbered citation for consistency.

R.61-51.C.28(e)

Renumbered citation for consistency.

R.61-51.C.28(f)

Renumbered citation for consistency.

R.61-51.D.2(a)

Revised language for consistency.

R.61-51.D2(a)(i)

Revised language for consistency.

R.61-51.E.2

Revised language to update citation and bottom slope requirements.

R.61-51.J.9

Revised language for legal consistency.

R.61-51.J.10

Revised language for legal consistency.

R.61-51.J.11(h)

Revised citation for consistency.

R.61-51.J.11(i)

Revised citation for consistency.

R.61-51.J.11(j)

Revised citation for consistency.

R.61-51.J.12

Revised citation for consistency.

R.61-51.J.16(b)(ii)

Revised language for consistency.

R.61-51.J.16(b)(iii)

Revised language for consistency.

R.61-51.J.17(a)  
Revised language for consistency.

R.61-51.J.17(b)  
Revised language for consistency.

R.61-51.K.1(a)(ii)  
Added language to clarify Type B pool closures.

R.61-51.K.1(a)(vii)  
Revised language to update pool closure for chlorine.

R.61-51.K.1(a)(viii)  
Revised language to update pool closure for pH.

R.61-51.K.1(a)(ix)  
Revised language to update pool closure for non-operational equipment.

R.61-51.K.1(a)(xiii)  
Revised language for clarification.

R.61-51.K.1(a)(xv)  
Revised language to update pool closure for not meeting pool operator requirements.

R.61-51.K.1(a)(xvi)  
Added language to require pool closure for fencing and gating being out of compliance.

R.61-51.K.1(b)  
Revised language for legal consistency.

R.61-51.K.1(c)  
Revised language for legal consistency.

R.61-51.K.1(d)  
Revised language for legal consistency and removing requirement for four pool closures before enforcement referral.

**Issue 6) Include language on the appeals process to comply with requirements of the S.C Administrative Procedures Act.**

**SECTION                      CHANGE**

R.61-51.M.  
Added language to include the statutory requirements for appeals.

**Instructions:**

Amend R.61-51 pursuant to each individual instruction provided with the text below:

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### Text:

#### Replace definition R.61-51.A.3 to read:

3. "Attendant" means a person, 16 years of age or older, who supervises or controls the entrance, exit or other activities of pool patrons. An attendant may not act as a lifeguard.

#### Add new definition R.61-51.A.5 to read:

5. "Bulk Storage" means any chemical storage container greater than fifteen (15) gallons of liquid, or solid chemical greater than the maximum capacity of the feeder.

#### Add new definition R.61-51.A.6 to read:

6. "Certified Public Pool Operator" means someone who holds a valid South Carolina Pool Operator Certificate from a party approved by the Department.

#### Replace and renumber definition R.61-51.A.6 to read:

7. "Change Order" means written notification submitted to the Department on a Swimming Pool Change Order Request Form detailing any proposed pool interior coatings, equipment changes or material alterations which do not conform to the original approved plans, specifications, or previously approved change order.

#### Renumber definitions R.61-51.A.7 to R.61-51.A.23 to read:

8. "Competition Pool" means a pool designed to be routinely used to host organized swim competitions such as those sponsored by colleges, universities, swim leagues, and swim clubs.

9. "Coping" means the covering which joins the top of the pool wall with the pool decking and is considered part of the minimum pool deck width requirement. If cantilevered deck is employed, the last twelve (12) inches of this deck next to the pool wall shall be considered coping.

10. "Contiguous" means within a one (1) foot horizontal distance.

11. "Department" means the South Carolina Department of Health and Environmental Control.

12. "Diatomaceous Earth" is a type of filter media that is obtained from the fossil remains of microscopic marine plants and is used in a thin coating over filter septa or bags.

13. "Disinfection Equipment" means any device used to supply approved disinfectants to the pool water.

14. "Elevated Structure" means any structure located within a ten (10) foot horizontal distance from the pool edge, which is intended for patron access, and may unintentionally serve as a raised platform for diving or jumping into a pool. This includes, but is not limited to elevated walkways, stairs and landings, balconies, or any construction which is interpreted by the Department as a structure intended for use by patrons that could be used for diving or jumping into a pool. This does not include pool equipment designed for, and approved by the department to be used for diving or jumping into a pool.

15. "Emergency Equipment" means a backboard with straps, two (2) blankets, cervical collars in adult and infant sizes or a commercial head immobilizer.

16. "Filter" means any apparatus containing filter media which is intended to physically remove suspended particles from pool water.



17. "Filter Backwash Piping" means the piping which extends from the backwash outlet of the filter to its terminus at the point of disposal.

18. "Filter Media" means the fine material which entraps the suspended particles as the water passes through the filter.

19. "First Aid Kit" means a water resistant, clearly labeled, latched container providing sufficient first-aid equipment to treat up to fifteen (15) people. The kit will contain as a minimum: alcohol wipes, antibiotic ointment, assorted adhesive bandages, a breathing barrier, a cold pack, gauze, and disposable gloves.

20. "Flow Meter" means a device installed on the pool return pipe (discharge line from filter) to indicate recirculation flow of the pool in gallons per minute (gpm).

21. "gpm" means gallons per minute.

22. "Hand feeding" means the dispensing of any pool chemical manually into the pool.

23. "Heater" means a device through which pool water is circulated to increase the temperature of the water which is specifically designed for pool or spa use.

24. "Hose Bibb" means water faucet with male screw threads to which a hose is attached.

**Add new definition R.61-51.A.25 to read:**

25. "Hybrid Pool" means any pool that has multiple intended use zones such as kiddie play zones, slide landing zones, lazy river zones, and swim zones.

**Renumber definitions R.61-51.A.24 to R.61-51.A.42 to read:**

26. "Hydrostatic Relief Valve" means a device, usually installed in the main drains, used to relieve ground water pressure imposed on the outer shell of the pool.

27. "Kiddie Play Park" means wading (kiddie) or spray pools intended to be used exclusively by children where climb-on toys and attractions are provided.

28. "Lifeguard" means a person having the qualifications of and possessing a current American Red Cross, YMCA, or equivalent Lifeguard Certificate, current First Aid Certificate and current CPR (which includes adult, child, and infant) Certificate.

29. "Lifeline Anchors" means the devices recessed in the wall of the pool at the transition point between shallow and deep areas.

30. "Life Saving Equipment Unit" means a coast guard approved ring buoy at least twenty (20) inches in diameter attached to a throwing line having a length of one and one-half (1 1/2) times the width of the pool up to a fifty (50) feet maximum length of rope and a life hook of the shepherd's crook style with minimum twelve (12) foot handle attached with stainless steel nut and bolt. For Type "A" and "E" pools a rescue tube may be used in place of a shepherd's crook and life ring.

31. "Main Body of the Pool" means the major portion of the pool body excluding any recesses, niches, coves, etc.

32. "Main Drain" means the outlet(s) at the bottom of the pool. These outlets are suction/gravity outlets connected to the recirculation piping.

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33. "Main Drain Piping" means the piping connecting the main drain to either the pump suction, surge tank, or the vacuum filter.

34. "Major Fraction" means twenty-five (25) percent or more.

35. "Minimum Flow Rate" means the least flow of water through the water treatment system that must be maintained to provide adequate treatment and is calculated by dividing the volume of the pool, in gallons, by the required turnover time, in minutes (gallons/minutes).

36. "Normal Operating Level" means the water level at one-half (1/2) the skimmer throat depth or at the gutter lip.

37. "Non-Slip" means having a coefficient of friction of 0.60 or greater when wetted for manufactured tile; or broom finish or other textured finish for concrete as recognized by the American Concrete Institute; or for other surfaces, incorporated features designed to prevent slippage.

38. "Obstruction" means any structure or object which blocks or limits access to the perimeter area of the pool. This includes but is not limited to planters, walls, water features, pillars, etc.

39. "Overflow Gutter" means a device at the normal water level which is used as an overflow and to skim the pool surface, in lieu of a surface skimmer.

40. "Owner" means the owner of the facility or his/her designated agent such as a property manager or on-site representative.

41. "Pool Area" means any area located within the fenced perimeter of the pool to include but not limited to the pool deck. The pool deck will define this area for facilities which do not have a perimeter fence. Where a fence is not required the pool area will include but not be limited to the pool deck.

42. "Pool Deck" means the paved area around the pool which is specifically constructed for use by swimmers.

43. "Pool Depth" means the distance between the floor of the pool and the normal operating level when the pool is in use.

44. "Portable Kiddie Slide" means a single flume slide with a starting height no greater than five (5) feet above the deck, made as a complete unit by a single manufacturer, and intended for use by children, which may be moved when not in use.

### **Replace and renumber R.61-51.A.43 to read:**

45. "Public Swimming Pool or pool" means an artificial structure used to impound water either above or below the ground surface to provide for such recreational uses as bathing, swimming, diving, wading, spraying, sliding, floating, rafting, or other similar usage which is not built in connection with a single family residence, or duplex (two living units within a single structure) and the use of which is not confined to the family of the residence and their private guests, or which is not owned, constructed, operated, or maintained by a church, synagogue, or religious organization, or facility exempted under Title 45, Chapter 4, of the South Carolina Bed and Breakfast Act. Public swimming pools are listed in the following categories based upon specific characteristics of size, usage, and other factors:

(a) Type "A" means any pool open to the general public, except for Type "E" pools, which does not require a membership or that a person be a guest of a member to gain entrance to the pool, or is not operated solely for and in conjunction with a residential development or a place of lodging.

(b) Type “B” means swimming pools at hotels, motels, apartments, mobile home parks, condominium developments, country clubs, schools, swim clubs, health clubs, campgrounds, subdivisions and other pools of similar usage. Lazy rivers constructed at the above facilities shall be considered Type “B” pools.

(c) Type “C” means wading pools, kiddie pools, spray pools, spray decks, or wet decks.

(d) Type “D” means treatment pools, health spa pools and hot tubs. Rehabilitation or therapy pools located at hospitals, sports therapy clinics, doctors offices, or other medical facilities which will be used solely for therapy and rehabilitation purposes and under the supervision of a physical therapist or other qualified medical personnel are excluded from this regulation.

(e) Type “E” means those pools at water parks such as water flumes, water slides, lazy rivers, wave parks, inner tube rides, kiddie play parks, etc. Type “E” also means pools at subdivisions that have a slide that is in use, or not able to be secured to prevent access when not in use. If the slide can be secured to prevent access when not in use, the pool may be open as a type “B” pool when the slide is not in operation and secured.

(f) Type “F” means special purpose pools used exclusively for limited activities such as scuba diving lessons, helmet diving lessons, underwater work training, or similar, limited uses.

(g) Type “G” means hybrid pool.

**Renumber definitions R.61-51.A.44 to R.61-51.A.59 to read:**

46. “Recirculation Piping” means the piping from the pool to the filter and return to the pool, through which the water circulates.

47. “Recirculation Pump” means the pump(s) that provide for complete recirculation of pool water through the recirculation piping and filter(s) at a prescribed rate of turnover.

48. “Recirculation System” means a system consisting of pumps, motors, piping, filters, inlets, outlets, disinfecting and other water conditioning equipment and necessary accessories.

49. “Residential Swimming Pool” means any privately owned swimming pool which is built in connection with a single family residence, the use of which shall be confined to the family of the owner and his guests, shall not include any type of cooperative housing or joint tenancy of two or more families, and shall be located within the same property boundary as the family dwelling building to which it serves. Pools constructed in conjunction with a single-family rental unit will be considered a residential pool.

50. “Return Inlets” means the fittings or openings through which water is returned to the pool.

51. “Return Piping” means the piping which carries the filtered water under pressure from the filter to the pool.

52. “Shallow End of Pool” means the portion of the pool with water depths of four (4) feet or less.

53. “Spray Pool” or spray deck or wet deck means an artificial structure used to impound water either above or below the ground surface into which treated water is sprayed and recirculated.

54. “Surface Skimmer” means a device used to skim the pool over a self-adjusting weir.

55. “Surface Skimmer Piping” means the piping that carries water from the skimmer to the pump suction, to include the equalizer piping.

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56. "Surge Tank" means an approved fixture or device of such material, shape, and capacity as to adequately receive the surge water from indirect or direct overflows, so constructed and located as to be easily cleaned.

57. "Technical Assistance Visit (TAV)" means a comprehensive on-site evaluation by the Department of a public pool to include pool area and associated equipment, operation and maintenance, and a review of current season inspections.

58. "Transition Point" means the point in a pool where the slope changes from one (1) foot vertical to ten (10) feet horizontal (1:10) maximum to one (1) foot vertical to three (3) feet horizontal (1:3) maximum. This point may separate the deep end from the shallow end.

59. "Turnover Time" means the period of time (usually hours) required to circulate the complete volume of water in a pool through the recirculation system.

60. "Vacuum Outlets" means the fitting in the pool which is used as an outlet for connecting the underwater suction cleaning equipment.

61. "Vacuum Piping" means the piping which connects the vacuum fitting to the pump suction.

### **Add new definition R.61-51.A.62 to read:**

62. "Vertical" is interpreted to permit poolside wall slopes not greater than one foot horizontal for each five feet of height of the poolside wall (79 degrees).

### **Renumber definitions R.61-51.A.60 to R.61-51.A.63 to read:**

63. "Wading (Kiddie) Pool" means a pool intended to be used exclusively by children for wading.

64. "Water Course, Water Slides or Water Flumes" means any pool using a water flume, channel, or slide for purposes of sliding and landing in an area filled with water (this does not include commercially manufactured swimming pool sliding boards).

65. "Well-Point System" means perforated pipe(s) placed in a gravel pit under the deepest point of the pool, where a pump may be connected to remove excess ground water from beneath the pool.

66. "Zero Depth Entry Pool" means a pool with a starting water depth of zero (0) feet which uniformly slopes to a deeper water depth.

### **Add new definition R.61-51.A.67 to read:**

67. "Zone" means any pool use type as it relates to the intended use of a specific portion of a hybrid pool (kiddie play zones, slide landing zones, lazy river zones, and swim zones). Zone areas and volumes must be clearly delineated on the plans and specifications.

### **Replace R.61-51.B.4(a) to read:**

(a) Plans and specifications shall be prepared, stamped, dated and signed by an architect or engineer registered in the State of South Carolina. Once construction starts, the pool contractor must maintain a copy of the DHEC-approved plans and specifications on the job site until the final inspection.

**Add new R.61-51.B.5(c) to read:**

- (c) Fees. The appropriate fee if any must be submitted with the Change Order Request.

**Replace R.61-51.B.7 to read:**

7. Final Approval. No newly constructed or altered public swimming pool shall be placed into operation until a final inspection of the facility has been conducted and a written approval to be placed into operation is issued by the Department. Before the final inspection can be conducted three (3) letters must be submitted, one by the pool contractor; one by the general contractor, owner or his designated agent; and one by the project architect or engineer; certifying that the public swimming pool, bathhouse, minimum toilet facilities, if required, fence, equipment room, area lighting, if provided, and other applicable items have been constructed according to approved plans and specifications and is ready for the final inspection. All three letters must be received by the Department before a final inspection will be conducted. In addition to the three certification letters, the engineer and or the architect or their representative must complete a copy of the Department's final inspection checklist, and it must be submitted to the Department prior to the final inspection. A contractor's and owner's representative must be present at the time of the final inspection.

**Replace R.61-51.C.4 to read:**

4. Location. The location of the pool will in no way hinder the operation for which it is designed nor adversely affect bather's safety or water quality. Outdoor pools must not be located where they will be exposed to excessive pollution by dust, smoke, soot, or other undesirable substances. If any portion of the pool is located within ten (10) feet horizontally of any second story balcony or any other elevated structure of which the floor elevation is between two (2) and thirty (30) feet above the pool deck, a protective barrier must be provided on said balcony or elevated structure. This barrier must be a minimum of five (5) feet in height and have no openings within this barrier greater than 4 inches in width. Buildings or structures at the pool deck level only within ten (10) feet of the pool waterline that have glazing must utilize tempered safety glass or other shatter resistant safety glazing for any doors and windows. All indoor pools must be located in adequately ventilated areas.

**Replace R.61-51.C.6(b) to read:**

(b) Pool decks required in (a) above must be constructed of broom finish concrete or other material which is as equal in strength and durability. The deck must be non-slip, impervious and no hazard to bare feet. The deck must slope one-quarter (1/4) inch to five-eighths (5/8) inches per foot per foot away from the pool. No wood decking or carpet is allowed within the required minimum deck widths. If concrete pavers are used for pool decking, they must be installed per the Interlocking Concrete Paver Institute (ICPI) code.

**Replace R.61-51.C.6(f) to read:**

(f) Hose bibbs must be provided around the perimeter of the deck area at intervals such that all parts of the deck can be reached with a one hundred (100) foot hose. A hose bibb may be located in the equipment room. All hose bibbs in the pool area must be isolated from the public water supply by an ASSE 1024 listed residential dual check or other Department approved backflow prevention device. If a common ASSE 1024 listed residential dual check valve is installed, it must be located in either the equipment room, or in a valve box such that it can be maintained and or replaced as necessary. Also, a shutoff valve must be installed downstream of the backflow device so the Department can verify that all hose bibbs are protected by the common backflow device. All backflow devices must be installed so that they are visible at the time of the final inspection.

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### Replace R.61-51.C.7 to read:

7. Depth Markers. Permanent depth markers must be plainly marked at or above the water surface on the vertical pool wall and on the edge of the coping or deck next to the pool, at a maximum and minimum point and at not more than two (2) foot intermediate increments of depth. Depth markers must be spaced at not more than twenty (20) foot intervals on center, as measured around the perimeter of the pool. A minimum of three (3) sets of evenly spaced depth markers are required for type "C" and "D" pools. One set of markers must be located adjacent to the steps or handrail. Depth markers must be in numerals and letters of four (4) inch minimum height and of a light-colored background (i.e., having a reflectance of fifty-five (55) percent or greater) with dark, contrasting lettering. Alternative designs, having sufficient contrast, will be considered on case-by-case basis. Depth markers must be on both of the sides and ends of the pool. Depths must be indicated in feet to the nearest one-half (1/2) foot. The abbreviation "ft." or word "feet" must be included. A total of twelve (12) inches of white background tile must be included as part of each depth marker(s). Depth markers are required for all pools, kiddie pools, spas, hot tubs, special water park pools, etc. Kiddie spray decks do not require depth markers. Depth markers on the deck must be non-slip and must start within fifteen (15) inches of the pool edge. In pools requiring "No Diving" signs, a single six inch by six inch universal no diving tile must be co-located with each set of deck depth marker tiles. Metric depth markers may be installed at any facility in addition to the standard markers required above. Depth markers for pools with multiple slopes (bowl shaped and diving wells) must accurately reflect the minimum depth at the edge of the pool and the maximum depth at the center of the pool and separated by a hyphen. For example, a pool sloping from all sides to the center would require the installation of the following depth markers, "3 FT - 5 FT". Alternative types of depth markers will be considered on a case by case basis for pools using stainless steel gutters or fiberglass shells. Depth markers shall be verified by measuring the depth at a distance of two (2) feet from the edge of the pool.

### Replace R.61-51.C.8 to read:

#### 8. Fences.

(a) All outdoor Type "A" and "E" public swimming pools (including the deck area) must be enclosed by a chain link fence or equal barrier of minimum six (6) foot height to prevent trespassing and to provide safety and cleanliness of the water. Type B and Type E pools that have a slide that is only in use when lifeguards are present must have the entry and exit points of the slide secured by either a six (6) foot high fence, or another method approved by the Department. All openings in the barrier must be equipped with gates or doors, with latches, that close automatically and can be locked. No openings in the fence shall be large enough for a four (4) inch sphere to pass. Local building codes for the pool location may require a smaller fence opening.

(b) All outdoor Type "B", "C", "D" and "F" public swimming pools (including the deck area) shall be enclosed by a minimum four foot fence as measured from the exterior of the pool area. All openings in the barrier must be equipped with gates or doors, with latches, that close and latch automatically and can be locked. Courtyard fencing may not be adequate to constitute fencing of the pool area. No openings in the fence shall be large enough for a four (4) inch sphere to pass. Local building codes for the pool location may require a smaller fence opening.

### Replace R.61-51.C.9 to read:

#### 9. Equipment Room.

(a) A suitable equipment room shall be provided to house all pool equipment to prevent unauthorized access. The room shall be of substantial and enduring construction to protect the equipment from damp, corrosive environment. This room shall have a roof, be at least eight (8) feet high and have a standard size lockable entrance door. Where equipment rooms are constructed at a different elevation than the surroundings, permanent steps should be provided for entry. The equipment room must be sized so that all equipment is accessible for ease of operation and inspection. The equipment room door must be sized to allow for the

largest filter in the room to pass through. At least three feet of clear walkway must be provided to allow access to the equipment. The room must have at least one (1) watt of artificial light for each square foot of floor area with a minimum of 100 watts incandescent, or equivalent. Continuously operated forced ventilation must be provided during pool operation so that the equipment room has a minimum of ten (10) complete air changes per hour and is vented to the outside and away from the pool. The light switch must be separate from the fan switch if a fan switch is provided. The floor shall be concrete and shall include necessary sumps. The floors must be sloped to drain to either floor drains or to the sump. All sump pits must be provided with a protective grate or covering capable of supporting a person. Sump pits that are protected by walls extending three (3) feet or more above the floor elevation do not have to have a protective grate. The purpose of this room is for recirculation system equipment only and storage of any other material or equipment is prohibited. Equipment rooms constructed below grade must be provided with reasonable access so as not to be considered a confined space. An emergency disconnect (e.g. shunt trip breaker) switch that disconnects all pumps in the equipment room must be located on the pool deck and clearly labeled with a minimum of four (4) inch red letters on a white background that states "Pool Emergency Cut-Off Switch".

**Add new R.61-51.C.9(c) to read:**

(c) All equipment must be installed per the manufacturer's recommendations, including equipment clearances.

**Replace R.61-51.C.10 to read:**

10. Chemical Storage. All pool chemicals must be housed in a separate room from the equipment room. The chemical storage room must have at least one (1) watt of artificial light for each square foot of floor area with a minimum of 100 watts incandescent or equivalent light. Continuously operated forced ventilation must be provided so that the chemical storage room has a minimum of ten (10) complete air changes per hour and is vented to the outside. The light switch must be separate from the fan switch if a fan switch is provided. The pool chemical room must be kept dry and locked at all times. Only chemicals used in the operation of the pool shall be stored in this room. Chemical storage rooms constructed below grade must be provided with reasonable access so as not to be considered a confined space.

**Replace R.61-51.C.11 to read:**

11. Drinking Fountain. At least one (1) drinking fountain shall be provided within fifty (50) feet of the pool at all public pools. All electrical drinking water fountain wiring must be in accordance with the National Electrical Code (NEC).

**Replace R.61-51.C.12 to read:**

12. Emergency Notification Device. A toll free emergency notification device to notify emergency personnel must be provided within a two hundred (200) foot walking distance of the pool and in a location that it is easily accessible during the hours that the pool is in operation. Only hard-wired notification devices are acceptable to the Department. Cellular and or cordless telephones are not an acceptable alternative to hard-wired emergency notification devices unless approved by the Department in writing.

**Replace R.61-51.C.13 to read:**

13. Bathhouse Facilities. Dressing and sanitary plumbing facilities must be provided for all Type "A" and "E" public swimming pools that charge for admission. Bathhouse facilities shall be located within two hundred (200) feet of the swimming pool. Applicable Americans with Disabilities Act guidelines shall be observed. Every bathhouse must be provided with separate facilities for each sex with no inter-connection between the male and female facilities. The rooms must be so developed and planned that good sanitation can be maintained throughout the building at all times.

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### **Replace R.61-51.C.14(a) to read:**

#### 14. Minimum Toilet Facilities.

(a) Minimum toilet facilities shall be provided within a three hundred (300) foot walking distance of Type "B", "C", "D", "F" pools and Type "A" and "E" facilities that do not charge for admission. Minimum toilet facilities must consist of at least one (1) lavatory and one (1) water closet for each sex. Floors must be of impervious materials and relatively smooth, but not have a slick finish. Each room must be furnished with a minimum of 60 watts of incandescent light and have adequate ventilation. Soap dispensers for providing either liquid or powdered soap must be provided at each lavatory or between each pair of lavatories. Mirrors, if provided, must be made of shatter-resistant material. Single service paper towel dispensers or blower type hand dryers must be provided. Toilet paper holders must be provided at each water closet. Floors must be well drained to prevent standing water. Carpet shall not be used on the floors.

### **Replace R.61-51.C.15(c) to read:**

(c) Cartridge Filters. Filters must be approved by and bear the seal of the National Sanitation Foundation. The filters must be of a disposable or washable element. Surface types must have a maximum flow rate of 0.375 gallons per minute for each square foot of effective filter area. A spare cartridge filter must be provided at each site where these types of filters are used. A sump pit and or hard piped drain line must be installed to handle the design flow rate of the recirculation system. If connected to a sanitary sewer system or municipal separate storm sewer system, specific approval must be obtained from the municipality or sewer authority for such discharge.

### **Replace R.61-51.C.16 to read:**

16. Filter Backwash. Backwash from the filter(s) must be piped to a disposal pit, tile field, or other disposal method approved by the Department. If the backwash water is to be discharged to a sanitary sewer system or municipal separate storm sewer system, specific approval must be obtained from the municipality or sewer authority for such discharge. If the method of backwash will be to an on-site storm sewer system, the location of the discharge and the name and distance of any receiving body of water must be identified on the project plans. Any discharge of backwash water to a water body must receive prior approval from the Department. All pools that directly discharge backwash water to waters of the State or stocked ponds must be equipped with an appropriately sized dechlorination device. If the method of backwash disposal will be to a pit or tile field, the location of discharge must be identified on the project plans and the receptacle must be adequately sized to accept the pool drainage. Also, a three (3) minute backwash cycle must be conducted at the time of the final inspection to ensure that there is adequate capacity of the disposal system. A minimum six (6) inch air gap must be maintained at the discharge point or two (2) single in-line check valves must be installed in the backwash line. The receptacle must be sufficiently sized to accommodate the backwash flow.

### **Replace R.61-51.C.17 to read:**

17. Pool Drainage. The method and location of discharge employed to drain the pool must be included on the project plans and the receptacle must be adequately sized to accept the pool drainage. If the pool drains to a sanitary sewer system or municipal separate storm sewer system, specific approval must be obtained from the municipality or sewer authority for such discharge.

### **Replace R.61-51.C.18 to read:**

18. Rate of Flow Indicator. Every public swimming pool must be provided with a rate of flow indicator located on the discharge line from the filters. Rate of flow indicators must be accurate to + or - 5% and installed according to manufacturer's instructions. Dimensions must be shown on the schematic diagram, indicating the actual location of the rate of flow indicator. The rate of flow indicator must be calibrated for and



provided with a scale reading in gallons per minute and shall have an upper range at least ten (10) percent above the maximum design flow rate. The scale resolution of the meter must fall within the design flow of the system. The activating element of the flow indicators must be installed in the filter effluent line. The flow meter must be mounted in a location such that it can be easily read.

**Replace R.61-51.C.20 to read:**

20. Pump and Motor. Pumps and motors under five (5) horsepower must be National Sanitation Foundation (NSF) approved or must be equally listed by a Testing Lab approved by the Department. The pump and motor must be of adequate size and capacity to provide the required pool turnover rate and should be located so as to eliminate the need for priming. If pump or suction piping is located above the overflow level of the pool, the pump must be self-priming. The pump and motor must be designed to supply, without overloading, the required design rate at a total dynamic head sufficient to overcome the friction losses in the piping, appurtenances, and the maximum headloss through the filter(s). Unless headloss calculations are provided by the designing engineer, pump design must be based on an assumed total dynamic head of fifty five (55) feet of water. All pumps must be provided with a corrosion-resistant strainer to remove solids, debris, hair, lint, etc. Pool pump motors must have a directly accessible on/off switch within three (3) feet horizontal distance of the pump(s). Pump(s) shall not be activated by a panel circuit breaker. All pumps shall be installed in accordance with the National Electrical Code (NEC). A device for regulating the rate of flow may be provided in the recirculation pump discharge piping.

**Replace R.61-51.C.21 to read:**

21. Water Treatment. Equipment for halogen disinfection (chlorine, bromine) must be provided on all pools. This equipment must be approved by and bear the seal of the National Sanitation Foundation. The equipment must be of such capacity to feed one (1) pound of free available chlorine per ten-thousand (10,000) gallons of pool volume per twenty-four (24) hour period in all pools. The equipment must be operable at all times that the recirculation system is in operation. This equipment must be installed in accordance with the approved manufacturer's instructions. The equipment manufacturer's name and model number of chemical feeder, as well as the size and number of feeding tanks must be furnished. All chemical feed pumps must be wired directly to the recirculation pump such that when recirculation flow stops chemical feed is halted. GAS CHLORINATION IS NOT PERMITTED. No chemical may be manually fed while the pool is open for operation. Supplemental water treatment systems may be approved on a case by case basis. Chemical feed containers for use with liquid feed systems, in excess of fifteen (15) gallons, must be provided with spill containment and must be clearly labeled. A detailed drawing must be included on the project plans. Ultraviolet (UV) or ozone disinfection may be added to any pool in addition to the minimum required disinfection.

**Replace R.61-51.C.25(a) to read:**

(a) All inlets and outlets must be provided and arranged to produce complete recirculation of water and the maintenance of uniform disinfectant throughout the pool. Relative placement of inlets and skimmers shall not produce short circuiting of the recirculation water. There must be at least four (4) return inlets, except for facilities covered under Section E and F. Wall return inlets must have variable orifice, directional flow fittings so that the flow pattern can be adjusted. Floor return inlets may be installed if they are uniformly spaced, if the number of floor return inlets provided meets the requirements of R.61-51.C.25(b). The maximum flow per inlet for all recirculation and booster system return inlets is twenty-five (25) gpm or a velocity of no greater than forty (40) feet per second per inlet. A minimum of ten (10) gpm must be provided per inlet. If necessary, the recirculation system shall be upgraded to meet the ten (10) gallon per minute requirement to ensure proper distribution of disinfectant.

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### Add new R.61-51.C.26(b)(vii) to read:

(vii) Where concrete pavers are used for decking, the skimmers must be anchored in place with concrete to prevent them from settling.

### Replace R.61-51.C.27(b) to read:

(b) Life Saving Equipment. All pools must be equipped with at least one (1) unit of life saving equipment must be inside the fence and be within two hundred (200) feet walking distance from any point on the pool perimeter. This equipment must be located within the pool area and inside the fence. One (1) unit of life saving equipment must be provided for each lifeguard chair. Life saving equipment is not required at Type "C" and "D" pools. All life saving equipment must be visible from the deck and unimpeded access must be provided.

### Replace R.61-51.C.27(d) to read:

(d) First Aid Kit. All Type "A" and "E" pools must have a first aid kit. This kit must be readily accessible when the pool is open to the public.

### Add new R.61-51.C.28(a) to read:

(a) All signs must be clearly displayed around the pool and must be free of obstructions including vegetation.

### Replace R.61-51.C.28(b) to read:

(b) Pool Rules Sign. At least one (1) "Pool Rules" sign for informational purposes must be posted such that the sign is visible from all entrance points of the pool and must contain, as a minimum, the items listed below, with the blanks reflected in (xii) through (xvi) below filled in before authorized operation:

- (i) There should be no solo swimming.
- (ii) There should be no running, boisterous or rough play.
- (iii) No person under the influence of alcohol or drugs should use the pool.
- (iv) There should be no spitting or blowing nose in pool.
- (v) Persons with diarrheal illness or nausea should not enter the pool.
- (vi) Persons with skin, eye, ear or respiratory infections should not enter the pool.
- (vii) Persons with open lesions or wounds should not enter the pool.
- (viii) No animals or pets allowed in the pool.
- (ix) No glass allowed in the pool or on the deck.
- (x) No children should be in the pool without supervision.
- (xi) You should take a shower before entering the pool.
- (xii) This pool is open from a.m. to p.m.

- (xiii) The maximum number of swimmers allowed in the pool is .
- (xiv) A first aid kit is located .
- (xv) An emergency phone (or other notification device) is located .

**Add new R.61-51.C.28(b)(xvi) to read:**

- (xvi) Life saving equipment is located at .

**Replace R.61-51.C.28(c) to read:**

(c) No Diving Sign. In addition to the above sign, permanent and separate "NO DIVING ALLOWED" signs must be displayed in conspicuous locations at all pools of surface area greater than two hundred (200) square feet and not having dimensions adequate for diving. The sign must read in all capitalized letters "SHALLOW WATER - NO DIVING ALLOWED" and must have minimum four (4) inch lettering for "SHALLOW WATER" and six (6) inch lettering for "NO DIVING ALLOWED". Two (2) or more signs must be provided so as to be clearly visible to anyone entering the pool. This sign may be required on Type "C", "D", "E", "F", and "G" pools if the Department decides the signs are applicable.

**Replace R.61-51.C.28(d) to read:**

(d) No Lifeguard on Duty Sign. In addition to the above signs, permanent and separate "NO LIFEGUARD ON DUTY" signs must be displayed in conspicuous locations. The sign must read in all capitalized letters "NO LIFEGUARD ON DUTY - SWIM AT YOUR OWN RISK" and must have minimum six (6) inch lettering for "NO LIFEGUARD ON DUTY" and must have minimum four (4) inch lettering for "SWIM AT YOUR OWN RISK". Two (2) or more signs must be provided and be clearly visible to anyone entering the pool. These signs are required on all Type "B", "C", "D", "F", and "G" pools that do not have lifeguards.

**Replace R.61-51.C.28(e); subitems (i) through (v) remain unchanged:**

(e) Spa Caution Sign. In addition to a pool rules sign, heated spas must also have a waterproof sign with bold lettering which is clearly visible and contains the following warning statement:  
CAUTION

- (i) - (v)

**Replace R.61-51.C.28(f) to read:**

(f) Pool Operator Sign. A sign must be posted or language must be added to the "Pool Rules" sign which reads, "The Pool Operator at this facility is \_\_\_\_\_ State license number \_\_\_\_\_."

**Replace R.61-51.C.29(a) to read:**

(a) A minimum of two (2) main drains must be provided on the bottom floor of the pool with at least one (1) at the lowest point of the floor to completely drain the entire pool. All such outlets must be interconnected and each drain must be directly connected to the main drain line. The interconnecting line must be adequately sized to accommodate one hundred (100) percent of the recirculation or booster pump flow. The main drain spacing must not be greater than twenty (20) feet nor less than three (3) feet on centers, nor shall they be more than fifteen (15) feet from any side wall. Interconnecting and outlet pipes must be flush with side wall and/or floor of main drain sump. If the pool is intended for fire protection the main drains and piping associated must be sized appropriately and shown on the plans.

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### Replace R.61-51.C.30 to read:

30. Overflow. Overflows are required for all indoor pools having a volume of fifteen hundred (1,500) gallons or greater. If overflow connections are not provided in skimmers or surge tanks, some type of overflow must be built into the pool wall which will be of sufficient size to carry off water that could be supplied by the fill spout, rainfall, or automatic fill device. All such overflow devices must drain to an approved location and must have a minimum six (6) inch air gap or check valve. Overflows must discharge to a location that drains away from the pool area such that the discharge remains visible when overflowing.

### Replace R.61-51.C.35 to read:

35. Steps and Ladders. At least one (1) ladder/steps must be provided for each seventy-five (75) feet of pool perimeter. Two (2) or more ladders/steps must be provided for all Type "A" and "B" pools. All ladders must have a minimum of three (3) tread design and must include treads of non-slip construction. Steps shall have a minimum tread width of twelve (12) inches, a maximum rise of eleven (11) inches and a minimum length of thirty (30) inches. All step risers must be of uniform height (within one half (1/2) inch of each other) with the exception of the bottom riser. All step treads must be level with a tolerance for step slope of one half (1/2) inch. When radial steps are to be constructed, the minimum standards are shown in figures 1, 2 and 3 as follows. All steps shall be non-slip and constructed in the shallow end of the pool only. Permanent black or dark colored edge stripes such as tile must mark steps. The edge stripe must be a minimum of two (2) inches wide, must be provided the entire length of each step, must be non-slip in texture, and must be installed on the run of each step so as to be clearly visible by patrons upon entering the pool. The step edge stripe must start within one (1) inch from the edge of the step. Where steps are used, a minimum of one (1) handrail must be installed. All handrails must be securely anchored, extend over and anchor into the bottom step, and be easily accessible for exiting the pool. No portion of the handrail shall be closer than three (3) feet from any other handrail. No figure four type handrails may be installed except on fiberglass pools and Type "C" pools. Where the average step length, as measured from the front edge of the middle step, is over ten (10) feet in width there shall be one (1) additional handrail for every average ten (10) feet of step width or major fraction thereof and they shall be evenly spaced. When tanning ledges are provided, the maximum water depth shall be twelve (12) inches. If the distance from the tanning ledge to the coping exceeds eleven (11) inches, then a single step and handrail must be provided. Handrails must be of the removable type. Ladders and handrails shall be designed so as to be secured tightly in place when the pool is in operation unless they are removed for certain aquatic events. Grab rail recess step type ladders can be used in lieu of the standard three (3) tread ladder.

### Add new R.61-51.C.39 to read:

39. Surge tank. Where surge tanks are provided, a means to clean and maintain the tank shall be shown on the plans. Main drains must be located in the bottom of the tank.

### Replace introductory title to R.61-51.D to read:

## D. PUBLIC SWIMMING POOL DESIGN REQUIREMENTS FOR TYPE "A" AND "B", AND "G" POOLS

### Replace R.61-51.D.2 to read:

#### 2. Pool Depths.

(a) The depth in the shallow portion must begin at three (3) feet and slope continually toward the deepest point of the pool.

(i) Where a pool is constructed with a maximum depth of five (5) feet, six (6) inches or less, the bottom must slope continually at a maximum of one (1) foot vertical to ten (10) feet horizontal and no lifeline is required.

(ii) Where the maximum pool depth exceeds five (5) feet, six (6) inches there shall be a lifeline between the shallow and the deep end which must be located at a point across the pool one (1) to two (2) feet on the shallow side of the transition point. Where there is no transition point, the lifeline must be at the four (4) foot, six (6) inch depth. The pool must slope continually from shallow end to the slope transition point; and the slope must not exceed one (1) foot vertical to ten (10) feet horizontal.

(b) Lifelines. The lifeline must be made of polyethylene or nylon rope with floats made of soft plastic or cork placed at not more than five (5) foot intervals. The lifeline must be minimum three-fourth (3/4) inches diameter and have floats at least five (5) inches by six (6) inches in size.

(c) Transition Point. Where the maximum pool depth exceeds five (5) feet, six (6) inches a permanent non-slip black or dark color tile stripe must be incorporated in the floor and the walls of the pool to mark the slope transition point. This tile stripe must be a minimum four (4) inches and a maximum six (6) inches wide and located at a point across the pool one (1) to two (2) feet on the shallow side of the transition point. Where there is no change in slope this line must be placed at the four (4) foot, six (6) inch depth.

(d) Zero-Depth Entry Pools. Zero-Depth entry pools are allowed in Type "A" and "B" pools only when a lifeline is placed at the two (2) to three (3) foot depth and a breakline tile stripe meeting the requirements of Section D Paragraph 2(c) is collocated with the lifeline.

(i) In addition to the required number of surface skimmers or perimeter gutter system, Zero-Depth entry pools must have either a gutter/trench with a grate cover installed along the zero depth area at an elevation which allows effective skimming at the trench at all times or two additional skimmers. Each of these additional skimmers must be located on each side of the zero depth entry at a water depth of between six (6) and twelve (12) inches. If the zero depth entry is greater than forty (40) feet in length, a gutter with a grate is required. All gutter designs will require either a collection/surge tank or a trough with a depth of at least twelve (12) inches. All installations that require a gutter must install an auto-fill device.

(e) Diving Boards. At least thirteen (13) feet of unobstructed vertical distance must be maintained above any diving board. This thirteen (13) foot height must extend eight (8) feet to each side and twenty (20) feet ahead of the front end of the board. In case of multiple diving boards, the above vertical distance must be provided for each board. Where diving is permitted, minimum depths of pools and clearances for various pool elements must be as shown in the following diagrams and tables (following Section D(2)(j)). Pool widths must be a minimum of eighteen (18) feet throughout the diving section.

(f) Depths and Clearances. The depths and clearances shown in the chart must be used as the basis for determining the safety features of pools which are not rectangular in shape. Cross-sectional diagrams must be given so that minimum depths and clearances may be determined for pools of non-rectangular shape; a minimum of one (1) longitudinal and one (1) latitudinal cross-sectional diagram must be given for all pools. Where a pool is built to permit diving, but has no diving board installed, diving is permitted only at the point on the deep end where a board would be installed. This point must be marked on the pool coping with the lettering "Diving permitted from this point only." The lettering shall be a minimum of 4" high and shall be marked on the deck or coping at a maximum of 12" from the pool edge.

(g) Walls, Ledges, and Islands. All walls must be vertical. No ledges are permitted inside the main pool body. Islands and walkways are allowed inside the main pool body provided that they are above the normal water level and extend to the bottom of the pool floor.

(h) Seats. Seats may be allowed in the shallow portion of the pool in water depths of four (4) feet or less if completely recessed from the main body of the pool. Recessed shall mean thirty six (36) inches back from the main pool body and not contiguous to any steps. The seat shall be eighteen (18) inches wide and eighteen (18) inches shall be for leg room. The maximum water depth over the seat shall not exceed twenty (20) inches. The front edge of the seat must be marked with a black or dark colored, non-slip tile a minimum of two (2) inches

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wide. A non-slip tile reading "NO STEP" shall be placed on the seat (1 1/2 inch lettering) and correspondingly on the deck (1 1/2 inch lettering) with no more than five (5) feet between signs if the seat is wider than ten (10) feet, otherwise the "NO STEP" sign shall be placed in the middle of the bench.

(i) The depths of the shallow portion of a pool with racing lanes which are intended to be used for lap swimming may be increased to three and one-half (3 1/2) feet or four (4) feet. The racing lanes must be marked in black tile or dark colored tile. This tile shall be non-slip. The tile lanes must be a minimum of six (6) inches wide and a maximum of twelve (12) inches wide.

(j) Construction tolerances shall be within plus or minus (+ or -) three (3) inches of design for overall pool length, width, or depth.

### **Add new R.61.51.D.2(k) to read:**

(k) Vanishing edge pools. Any vanishing edge pool that has a drop of eighteen (18) inches or less as measured from the top of the edge to the normal operating level in the receiving trough is not required to have safety netting. If the drop exceeds eighteen (18) inches, the Department may require the installation of safety measures (safety netting, grates, etc.) to prevent injury. Troughs must be designed to deter access and must have appropriate signs (i.e. "Keep Out", "Do Not Enter", etc.) troughs must be provided with appropriately sized main drains and designed to provide skimming action.

DEPTH minimum feet (') and inches (")					
Stands and Boards Max to water	D-1	D-2	D-3	D-4	D-5
Three (3) Meter Board	6' 0"	4'6"	12'6"	12'0"	12'0"
One (1) Meter Board	6'0"	4'6"	10'6"	10'0"	10'0"
Deck Level Board [Less than twenty six (26) inches]	6'0"	4'6"	9'0"	8'6"	8'6"
No Board	6'0"	4'6"	8'6"	8'0"	8'0"
No Diving Pool	3'0"	3'0"	3'0"	3'0"	3'0"
LENGTH OF SECTION minimum					
Stands and Boards Max to water	A	B	C	D	E
Three (3) Meter Board	5'0"	6'0"	9'0"	23'0"	13'0"
One (1) Meter Board	5'0"	6'0"	9'0"	17'0"	11'0"
Deck Level Board [Less than twenty six (26) inches]	2'6"	6'0"	7'6"	12'0"	9'0"
No Board	6'0"	6'0"	12'0"	-	-
No Diving Pool	-	-	-	-	-

D-1 shall be no farther out than a maximum of 15" from pool wall. Slope of D shall not exceed 1'-0" vertical to 3'-0" horizontal. The maximum values of A are 6'-0" for 1-Meter and 3-Meter boards and 4'-0" for deck level boards. Clearance above the board must extend the entire length of sections B, C and D. Depth D-5 is measured at midpoint of Section B where a diving board is not provided. Where a diving board is provided D-

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5 shall be measured from the tip of the board. The minimum distance between the diving well wall on the deep end and any opposite wall shall not be less than six (6) feet greater than the diving bowl dimensions (B, C and D). All diving boards that are placed at a height above water between those listed shall be made to comply with the listing that is greatest, e.g. 34" board shall comply with the one meter board height above water. Shallower water depths of three and one-half (3 1/2) feet or four (4) feet will be considered for pools with racing lanes that will be used for competitive swimming and diving from stands.

### **Add new R.61-51.D.7 to read:**

7. Pool Width. Type "A", "B", and "G" pools must be a minimum of ten (10) feet wide, with the exceptions of alcoves and lazy rivers. Lazy rivers must be a minimum of six (6) feet wide. Alcoves are recessed areas of the pool where seats may be located.

### **Add new R.61-51.D.8 to read:**

8. Type "G" Pools. Each zone of a type "G" pool must maintain the required turnover rate for its intended usage type (e.g. a type "C" pool has a 1 hour turnover rate, therefore a kiddie pool zone would require a 1 hour turnover rate). To ensure that this requirement is met, a separate return line must be provided for each zone. Each return line must be provided with a flow meter that meets the requirements of R.61-51.C(18), or other Department-approved method to ensure the required flow rate per zone is maintained.

### **Replace R.61-51.E.2 to read:**

2. Type "C" Pools. In addition to meeting all other applicable requirements of these regulations as found in Section C, Type "C" pools must also meet the following: There must be a minimum of two (2) inlets and two (2) main drains and at least one (1) surface skimmer positioned and operated in accordance with R.61-51.C.26(b). When only one (1) skimmer is provided and the equalizer outlet is installed on the pool floor, it must be equipped with a minimum of two (2) interconnected suction fittings spaced at least twelve (12) inches apart. The interconnecting line must be sized to accommodate one hundred (100) percent of the recirculation flow. Main drains shall be located on the pool bottom floor. Inlets and outlets must be provided and arranged to produce complete recirculation of pool water and the maintenance of a uniform and adequate level of disinfecting medium at all times. Type "C" pools must be provided with a means of completely draining the contents of the pool to waste without passing through the filter. This may be done by a gravity waste line directly from the pool or by pumping and by-passing the filter. The maximum depth for a wading pool shall be eighteen (18) inches at the center. The bottom must have a maximum slope of no greater than five-eighths (5/8) inches per foot toward waste outlets or main drains. The depth at the perimeter may be zero (0) feet.

### **Replace R.61-51.E.3 to read:**

3. Spray Pools. In a spray pool, water must be designed to drain away freely as it sprays over the area. Water quality, wall and floor construction must meet the same requirements as set forth for public swimming pools. The bottom must have a minimum slope of not less than one-fourth (1/4) inch per foot (nor maximum of more than five-eighths (5/8) inch per foot) toward waste outlets. All equipment drains, steps, gadgets, and toys must be installed per the manufacturer's recommendations.

### **Replace R.61-51.I.1 to read:**

1. Applicability. All public swimming pools, no matter when constructed, must comply with the requirements of this section. A change order is required for any interior pool coating, equipment or structural modification which is not an identical replacement for the originally approved design. All change order requests must be approved by the Department in writing prior to commencement of work. The request must be made using the Swimming Pool Change Order Request Form.



**Replace R.61-51.J.8 to read:**

8. Equipment Enclosure. An enclosure must be provided to prevent unauthorized access to pool operating equipment. The structure shall protect the equipment from vandalism. This enclosure must be of adequate height and size to enable required equipment maintenance and designed to drain away excess water. It must be adequately illuminated and ventilated. The equipment enclosure room is to be used specifically to house equipment for the pool's recirculation, filtration, and disinfection.

**Replace R.61-51.J.9 to read:**

9. Recirculation System. The recirculation system must be operated on a twenty-four (24) hour basis during the swimming season unless it can be demonstrated by the owner or designated agent that water quality can be maintained with fewer hours of operation. The recirculation system must be operated during posted pool hours.

**Replace R.61-51.J.10 to read:**

10. Accidents. Any death, injury, or accident requiring an EMS response, an emergency room visit, or hospitalization must be reported to the Department by the owner or designated agent in writing on a Department approved form within seventy-two (72) hours of the occurrence.

**Replace R.61-51.J.11 to read:**

11. Safety Precautions.

(a) One or more lifeguards shall be on duty for each two-thousand (2,000) square feet of pool area or major fraction thereof during operation hours at Type "A" and "E" pools. Lifeguards must have their current certifications available for inspection while on duty. Lifeguards, when on duty, shall have no other duty but to supervise the swimmers. Any Type "B" facility choosing to use lifeguards must comply with all of the requirements listed in R.61-51.J(11)(a).

(b) Type "A" and "E" pools must be locked when not under lifeguard supervision. All pools must be locked when not open for patrons.

(c) Each Type "E" facility must provide attendants during operation of the facility to control the spacing and number of patrons utilizing each ride and to ensure and maintain the safe egress of all sliders out of the landing pool.

(d) At least one unit of life saving equipment must be inside the fence and be within two hundred (200) feet walking distance from any point on the pool perimeter and must be readily accessible and functional during posted pool hours. Life saving equipment is not required for Type "C" and "D" pools. Shepard's crook and life ring are not required for Type "A" and "E" pools if rescue tubes are provided.

(e) For all Type "A" and "E" pools one unit of emergency equipment must be readily accessible and functional during posted pool operating hours.

(f) All pools must have a first aid kit. This kit must be readily accessible during posted pool hours.

(g) A toll free telephone or other emergency notification device, other than a cellular or cordless telephone, unless approved in writing by the Department, to notify emergency personnel must be available in the pool area (within two hundred (200) feet walking distance of the pool entrance). The location of the toll free telephone or emergency notification device must be specified on the pool rules sign.

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(h) Signs in accordance with R.61-51.C.28 must be posted in a conspicuous place in the pool area for all pools. A single sign, if used for multiple pools must be clearly visible from each body of water.

(i) All diving boards and handrails must be maintained in a safe condition. Handrails and ladders must be rigidly secured while the pool is in operation and must comply with R.61-51.C.35.

(j) The lifeline must be maintained in good condition and kept in place except when lap swimming or routine maintenance is conducted. The lifeline must conform to the requirements listed in R.61-51.D.2.(b).

(k) All removable diving stands must be removed when not in use.

(l) Any automatic vacuum systems must be removed from the pool during the hours the pool is open to the general public. In-floor cleaning systems must not be in operation during hours that the pool is open.

### Replace R.61-51.J.12 to read:

12. Swimming Limit. The swimming limits are determined in accordance with R.61-51.C.34 and must be posted on the pool rules sign.

### Replace R.61-51.J.14 to read:

#### 14. Water Quality

(a) A pool water quality test kit must be available at the facility during posted operating hours. This kit's condition must allow for accurate readings of free chlorine, bromine, pH, and cyanuric acid, if used.

(i) The DPD method or methodology approved either by the USEPA or the current edition of Standard Methods must be used to obtain free chlorine/bromine levels.

(ii) Samples for water quality testing shall be obtained at poolside.

(b) The following levels must be maintained for all pools:

Chlorine	1 to 8 parts per million (ppm) free chlorine
Bromine	2.3 to 17.6 parts per million (ppm)
pH	7.0 to 7.8 standard units

(c) All outdoor pools using chlorine may be stabilized with cyanuric acid. When used, the cyanuric acid level must not exceed two hundred (200) parts per million for calendar year 2009, one hundred fifty (150) parts per million for 2010, and one hundred (100) parts per million beginning in 2011. Indoor pools need not be stabilized.

(d) There will be no hand feeding of chemicals while the pool is open for swimming. The pool shall remain closed until chemical levels are within Department approved limits.

(e) In all cases of biological or chemical contamination of the pool water, the pool shall be immediately closed and the facility operator shall follow all current Department guidance in addressing the contamination before reopening of the pool. Biological contamination such as fecal, blood, or other body fluids shall be treated using guidance published by the Centers for Disease Control (CDC) on their healthy swimming web site. Procedures other than those provided by the Department may be approved on a case-by-case basis.

**Replace R.61-51.J.15 to read:**

15. Automatic Controllers. Where automatic controllers are installed, the equipment shall be maintained in proper operating condition at all times. This maintenance shall include all of the manufacturers periodic service and calibration schedules for the controller and associated monitoring equipment.

**Replace R.61-51.J.16 to read:**

16. Pool Temperatures

- (a) Pool, spa, lazy river, or other pool type temperatures shall not exceed 104 degrees Fahrenheit.
- (b) The temperature of each heated Type "D" pool must be monitored and posted by one of the following ways:
  - (i) Every two hours and posted on the spa caution sign.
  - (ii) Continuously with automated equipment and the temperature displayed within sight of the spa.
  - (iii) A shatter-resistant thermometer placed in the spa so that spa users can read it.

**Replace R.61-51.J.17 to read**

17. Operation Reports.

- (a) Daily operation reports shall be maintained at every public pool. These shall include, as a minimum, readings of chlorine/bromine and pH. Chlorine/bromine and pH shall be checked daily or more frequently during operating hours to ensure the facility maintains required water quality standards for chlorine/bromine and pH. Cyanuric acid levels, if applicable, must be checked and recorded weekly.
- (b) Results must be annotated on a bound log, with consecutively numbered pages, that is acceptable to the Department. The date, time and actual numerical reading must be listed on the report. Instrument monitoring shall not be used in lieu of physical water sampling at poolside. The report must be initialed at each reading and signed by the pool operator or his/her designated agent.
- (c) Reports must be available for Department staff at time of inspection. In addition, reports shall be maintained and available at the facility for the previous eighteen (18) months.

**Replace R.61-51.J.18 to read:**

18. Pool Operator

- (a) All public swimming pools shall be operated under the direction of a qualified swimming pool operator who holds a valid South Carolina Pool Operator's certification issued by a party approved by the Department. Specific criteria shall be established by the Department for this approval process.

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(b) The pool operator of record must inspect each public swimming pool a minimum of three (3) times per week during operation. Results of this inspection shall be annotated in the facility's bound log book and initialed by the pool operator.

### **Replace R.61-51.J.19 to read:**

19. Depth Markers. All pools must comply with the depth marker requirements listed in R.61-58.C(7) when a Change Order Request Form has been approved by the Department for recoating or resurfacing of the interior of the pool or for resurfacing of the deck.

### **Replace R.61-51.J.21 to read:**

21. Inspection of Facilities and Sampling of Pool Water.

(a) All public pools must be accessible for inspection by authorized representatives of the Department during the posted pool operating hours unless a sign is posted indicating that the pool is closed. Equipment rooms and associated chemical storage areas must also be accessible during pool inspection.

(b) It is the owner's or designated agent's responsibility to correct those items not in compliance with these regulations.

### **Replace R.61-51.J.22 to read:**

22. Facility Closure. If the public swimming pool is closed for six (6) months or longer, the facility shall be appropriately covered with a commercially manufactured pool cover or drained of stagnant water, cleaned, and secured with a fence to prevent access. If drained, care should be taken to ensure that the facility is not damaged by subsurface hydro-static pressure. If a public swimming pool is to be permanently closed, for a period in excess of twenty-four (24) consecutive months, the pool shall be filled in or removed and the water and drainage connections removed. Once a pool is filled in, there should be no subsequent settling that causes water to pond. Facility closures require written notification to the Department.

### **Replace R.61-51.J.24 to read:**

24. Operation and Maintenance Variance. When a pool owner or designated agent desires to operate a public swimming pool under a standard other than specified in these regulations a variance may be requested from the Department. Such a request must be submitted in writing and shall include a description of the standard proposed, identify the standard required by the regulation and include proof of equivalency. This request for a variance may be considered by the Department for approval. The Department's decision on such a variance will be final and will be made in writing.

### **Replace R.61-51.K.1 to read:**

1. Closure of Public Swimming Pools.

(a) Public Swimming Pools are to be closed immediately by the owner or his/her designated agent under the following conditions:

(i) When a public pool has not been issued or fails to display a valid annual operating permit from the Department.

(ii) When the required number of lifeguards are not on duty at Type "A" and Type "E" pools or Type "B" pools choosing to use certified lifeguards in lieu of the required "No Lifeguard on Duty" signs.

- (iii) When any pool is cloudy such that the main drains are not visible and/or the number of openings in the main drain cannot be counted.
- (iv) When any item of life saving equipment is missing, defective or not readily accessible in the pool area.
- (v) When the telephone/emergency notification device is missing, defective, or not accessible.
- (vi) When an imminent safety hazard exists that poses a threat of injury or illness to bathers.
- (vii) When the free residual chlorine or equivalent halogen reading is less than 1.0 parts per million (ppm) or greater than 8.0 parts per million (ppm).
- (viii) When the pH is less than 7.0 or greater than 7.8.
- (ix) When the disinfection, recirculation, automated control system used to adjust water chemistry, or filtration system is not fully operational.
- (x) When the pool log is not available or not properly maintained.
- (xi) When fecal coliform is present in the pool water.
- (xii) When the temperature of any type pool exceeds 104 degrees Fahrenheit.
- (xiii) When "Pool Rules", "No Diving", spa "Caution", "No Lifeguard on Duty", or "Pool Operator" signs are not posted in accordance with R.61-51.C.28(a) through (f).
- (xiv) When time limits specified by the Department have been exceeded for the correction, repair, or replacement of defective, missing, or unauthorized equipment.
- (xv) When the facility fails to retain or produce proof of the services of a properly credentialed pool operator.
- (xvi) When the existing pool perimeter fencing and/or entrance gate or door do not meet the requirements of R.61-51.C(8).

**Replace R.61-51.K.1(b) to read:**

(b) Where the owner or designated agent fails to close, or is not available to close the swimming pool under any of the above circumstances, the Department shall close the swimming pool and post "No Swimming" signs.

**Replace R.61-51.K.1(c) to read:**

(c) In every case of pool closure, one or more "No Swimming" signs shall be posted conspicuously around or inside the affected pool enclosure. The owner or designated agent shall require all swimmers to leave the pool water. When closed by the owner at Department request, the swimming pool may be reopened after the noted deficiencies have been corrected, unless Department reinspection is required. When the owner fails to comply with the Department's request for closure, the Department will post "No Swimming" signs and the facility may not reopen until a satisfactory Department reinspection occurs.

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### **Replace R.61-51.K.1(d) to read:**

(d) Following the third pool closure within a twelve (12) month period, the owner and designated agent may be notified and offered a technical assistance visit by Department staff.

### **Replace R.61-51.M. to read:**

APPEALS.1. A Department decision involving issuance, denial, renewal, modification, suspension, or revocation of a permit may be appealed by an affected person with standing pursuant to applicable law, including S.C. Code Title 1, Chapter 23 and Title 44, Chapter 1.

2. Any person to whom an order, related to a permit, is issued may appeal it pursuant to applicable law, including S.C. Code Title 1, Chapter 23 and Title 44, Chapter 1.

### **Fiscal Impact Statement:**

No costs to the State or significant cost to its political subdivisions as a whole should be incurred by these amendments. See Statement of Need and Reasonableness below.

### **Statement of Need and Reasonableness:**

The statement of need and reasonableness was determined by staff analysis pursuant to S.C. Code Ann. Sections 1-23-115(C)(1)-(3) and (9)-(11).

DESCRIPTION OF REGULATION: Amendment of Regulation 61-51, Public Swimming Pools.

Purpose: The Department has revised R.61-51 to address specific issues dealing with the construction and operation of public swimming pools in South Carolina. The amendments also include the acceptance of an operator certification by the Department. These amendments will provide greater flexibility for the building of public swimming pools and are necessary in order to provide consistently safe and healthy recreation for our citizens and visitors when they choose to swim in public pools throughout the State. Additionally, the Department has also amended R.61-51 for compliance with statutory changes in the administrative appeals process pursuant to the S.C. Administrative Procedures Act.

Legal Authority: R.61-51 is authorized by 1976 Code Sections 44-1-140(7), 44-55-2310 et seq., 44-1-60 (2006 Act 367).

Plan for Implementation: These amendments will be incorporated within R.61-51 upon approval by the Board of Health and Environmental Control, the South Carolina General Assembly, and publication in the *State Register* as a final regulation. The amendments will be implemented in the same manner in which the current regulation is implemented.

### **DETERMINATION OF NEED AND REASONABLENESS OF THE REGULATION BASED ON ALL FACTORS HEREIN AND EXPECTED BENEFITS:**

The adoption of these regulations will allow the Department to accept operator certification by a party or parties approved by the Department. In addition, these regulations will enhance safety at public swimming pools by changing chemical levels, incorporating updated design requirements, and strengthening operation and maintenance requirements.

## DETERMINATION OF COSTS AND BENEFITS:

There will be no cost increase to pool operators for certification changes. There should be no cost increases for the operation and maintenance changes. The pool design requirement changes may add capital costs to some projects depending on project size and complexity.

The benefits for the design requirements facilitate increased ease of pool design and construction, operation and maintenance, and pool user safety. The operation and maintenance changes will have positive impacts on pool water quality, safety, and emergency response.

## UNCERTAINTIES OF ESTIMATES:

Moderate.

## EFFECT ON ENVIRONMENT AND PUBLIC HEALTH:

There will be no effect on the environment. The amendments will protect public health through bather safety.

## DETRIMENTAL EFFECT ON THE ENVIRONMENT AND PUBLIC HEALTH IF THE REGULATION IS NOT IMPLEMENTED:

While there will be no detrimental effect on the environment if the amendments are not implemented, there is potential for adverse public health impacts as noted above.

**Statement of Rationale:**

The proposed amendments of R.61-51 will better protect the health of bathers in public swimming pools and decrease the potential for illnesses associated with fecal contamination. The public and those working in and around public swimming pools will benefit from the safety measures included in the proposed amendments.

Document No. 3198

**DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL****CHAPTER 61**

Statutory Authority: 1976 Code Sections 44-96-10 et seq.

## 61-107.17. Solid Waste Management: Demonstration-of-Need

**Synopsis:**

This amendment revises section 61-107.17 of R.61-107, Solid Waste Management, expanding the scope of this regulation section by defining needs determination criteria for certain types of solid waste facilities. This includes adding solid waste processing facilities and air curtain incinerators that burn waste other than wood waste and yard trash (under the definition of solid waste incinerators) to the list of facilities requiring a demonstration-of-need. It revises the size of the planning areas around some solid waste facilities, adds new criteria for determining the disposal rate limit for Class Two and Class Three landfills, and determines when disposal rate increases may be requested. It redefines “non-commercial” and “commercial” solid waste management facilities. These changes will help reduce the number of potential locations for new solid waste facilities and help to reduce and install a cap on the over-all allowable disposal rate in the State while ensuring an adequate number of facilities throughout the State to meet disposal needs.

This amendment updates section 61-107.17 for consistency with the changes approved by the legislature in Document 3113 that amended R.61-107, Solid Waste Management, and took effect by publication in the State

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Register on May 23, 2008. Document 3113 simultaneously repealed four existing solid waste landfill sections of R.61-107 (107.11; 107.13; 107.16; 107.258) and replaced them with new section 61-107.19, Solid Waste Management: Solid Waste Landfills and Structural Fill. Section 61-107.19 addresses all solid waste landfills and structural fill activities.

### **Discussion of Changes Made Pursuant to the Request of the Senate Medical Affairs Committee by Letter dated May 7, 2009:**

Section A.1 was changed to add the word “type”.

A redundancy in Section A.2. was deleted and the section was renumbered.

The definitions section was revised to remove a reference to Section C.4.

Section C.1 was expanded to include language moved from another section. Language was also added that explained what waste generation will be considered in determining allowable increases in annual disposal rates. A reference to paragraph D.2 was corrected to reference Section D.3.

Section C was renumbered.

Section C.6 was added to clarify how determinations that were made prior to the regulation change will be handled.

Section D was modified to change how the Department would determine the allowable location for facilities and how the maximum allowable yearly disposal rates would be determined.

Section D.1.c was modified to clarify how the geographic location of a facility should be determined.

Section D.1.e was reworded for clarity.

Section D.2 was modified, renumbered and sub-sections were moved to the new Section D.3.

Section D.2.a was modified to clarify instances when no new capacity shall be allowed.

Section D.3.a, Section D.3.b and Section D.3.c were revised to change how the Department will calculate yearly disposal rates for Class Three landfills.

Section D.3.a was added to change how the Department will calculate maximum yearly disposal rates for Class Three landfills.

Section D.3.b was added to specify how the Department will calculate maximum yearly disposal rates for Class Two landfills.

Section D.3.c was added to specify when a permitted Class Three landfill may request an increase in their yearly disposal rate and to set a maximum limit on tonnage increases.

Section D.3.d was added to specify when a Class Two Landfill may request an increase in their yearly disposal rate.

Section D.3.d.1 changes how the maximum yearly disposal rate for Class Two Landfills will be determined.

Section D.3.d.2 adds an allowable variance for Class Two Landfills to temporarily exceed their permitted annual disposal rate under specific conditions.



Section D.3.e clarifies the source of data to be used by the Department to determine disposal and generation rates.

Section D.4 was added to specify how the Department would calculate the maximum allowable yearly throughput for solid waste processing facilities.

Section D.5 was added to specify how the Department would calculate the maximum allowable yearly throughput for solid waste incinerators.

Section D.6 was modified for consistency with changes to Section D.2 and to specify variance provisions.

**Discussion of Revisions as Submitted by SCDHEC to the  
General Assembly for Review on January 13, 2009:**

Statutory Authority. The entire Solid Waste Policy and Management Act replaces specific sections.

Table of Contents. The table was amended pursuant to changes in the text.

Section A. Applicability.

This section was revised to delete outdated names of solid waste facilities and to add new terminology for consistency with section 61-107.19 (State Register Document No. 3113). Also solid waste processing facilities are added to the list of solid waste facilities required to demonstrate need and replaces municipal solid waste and industrial incinerators with solid waste incinerators which includes air curtain incinerators that burn waste other than wood waste and yard trash. Additionally, a requirement was added that any existing facility that requests a change in classification or commercial status is required to demonstrate need. Class Three solid waste landfills permitted to accept only industrial waste, that request approval to accept municipal solid waste, are required to demonstrate need.

Revisions define facilities not regulated under the purview of this regulation.

Names of facilities are changed for consistency with section 61-107.19. The revision states that all facilities other than non-commercial are considered commercial facilities.

Language was added to include air curtain incinerators that receive only wood waste and yard trash to the list of facilities not covered by this regulation.

A new statement was added that facilities other than those listed in Section A.1 are not covered by this regulation.

A new statement was added that processing of waste at source of generation is not covered by this regulation.

A new statement was added that the processing of waste at permitted Class Three solid waste landfills destined for disposal at that landfill do not need demonstration-of-need for the processing portion.

Section A outline was renumbered pursuant to the revisions.

Section B. Definitions.

The name of this section was renamed "Definitions for the Purposes of this Regulation".

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New definitions were added in alphabetical/numerical order for: “Class Two solid waste landfills”, “Class Three solid waste landfills”, “Consistency determination”, “Non-commercial solid waste management facility”, “solid waste incinerators”, and “solid waste processing facility”. The definition for “solid waste disposal facilities” was changed to “solid waste management facilities” and revised as appropriate. The “solid waste incinerator” definition excludes pyrolysis facilities, waste-to-energy facilities burning solid waste used for energy recovery, and air curtain incinerators that burn only wood waste and yard trash. The following definitions were revised: “commercial solid waste management facility”, “Disposal rate”, “Expand”, and “Planning area”. A table of facilities requiring demonstration-of-need under the planning area definition was revised and moved to Section C.4. Stylistic changes were made as appropriate.

Section outline was renumbered appropriately.

### Section C. Demonstration of Need Requirements for Solid Waste Disposal Facilities.

Due to numerous revisions, this section was struck and rewritten in its entirety; it was renamed “Demonstration of Need Requirements.”

This section was revised for clarity and to update terminology for consistency with section 61-107.19. Also, a requirement was added that a consistency determination be made prior to issuance of a permit to construct or expand.

A statement that construction cannot begin until a permit is issued was deleted because it is not relevant to this regulation. Terminology in list of facilities needing demonstration-of-need for consistency with section 61-107.19 was revised. Also, the scope was expanded by adding solid waste processing facilities that process waste destined for disposal at Class Three solid waste landfills to the list of facilities requiring demonstration-of-need.

Language addressing solid waste generated in other jurisdictions was clarified with the elimination of a double negative.

A statement that demonstration-of-need will be made prior to a consistency determination was deleted. Text defining the size of the planning areas was moved from the definitions section and revised for consistency with section 61-107.19. The planning area for Class Two solid waste landfills (which includes current C&D landfills) was changed from 10 miles to 20 miles. The scope was expanded to include processing facilities. The terms for “municipal solid waste incinerators” and “industrial incinerators” were combined into new term “solid waste incinerators,” which includes air curtain incinerators that burn waste other than wood waste and yard trash.

New language states that demonstration-of-need requests will be reviewed in the order in which they are received. If consistency request/documentation is not submitted to the Department with the demonstration-of-need request and need is demonstrated, the location for the proposed facility will be reserved for 60 days to allow time for submittal of a consistency determination request.

New language is added that demonstration-of-need determinations made prior to the effective date of regulation will remain valid subject to termination criteria outlined in the regulation.

New text outlines conditions under which the Department can terminate demonstration-of-need determinations. These conditions include: no evidence of diligent pursuit of the appropriate solid waste permit or any related necessary approval within 120 days of the applicants submittal of the demonstration-of-need request, and denial of a permit application. This is added to ensure that an area of the state will not be blocked inappropriately.

Section C outline was renumbered pursuant to the revisions.

D. Determining Need.

This section was struck and rewritten in its entirety; it was renamed “Demonstration-of-Need Application Process”.

Revisions were made for clarity. The list of specific information for the applicant to submit with a demonstration-of-need request was expanded to include the name of the facility, the applicant contact information, the facility type, the host county and the applicant’s signature. The description of allowable methods for submitting site coordinates was also expanded. This section also identifies the center of the property(s) on which the facility is placed as the reference point.

A statement no longer applicable was deleted that disposal facilities that accept only waste generated in the county or region in which the disposal facility is located will not be considered in determining need. A new statement was added that landfills in post-closure will not be considered in determining need.

Criteria for determining maximum yearly disposal rates for Class Three solid waste landfills were changed to reduce the allowable portion to 40 percent of waste generated from counties within the planning radius that host another Class Three solid waste landfill. These criteria are added to help lower the over-all allowable disposal rate in the State.

A reference to “separate ownership” is removed to reduce the possible number of facilities and resulting capacity increase within a planning area.

The clarification was made that in determining the amount of solid waste destined for disposal, the Department would use the figures contained in the previous fiscal year Solid Waste Annual Report.

The Variance section was renumbered and revised as appropriate. Also, the requirement that the applicant must apply for a variance at least five years before exhausting permitted capacity was deleted. This is not practical. The variance conditions for Class Two and Class Three solid waste landfills were specified. Clarification was made that a variance will not be issued if other applicable requirements are not met.

The section outline was renumbered pursuant to revisions.

E. Violations and Penalties were amended for consistency with other regulations.

F. An Appeals section was added that requires appeal of determinations of need or consistency when the determinations are issued and not as part of an appeal of a decision on the permit. This is to maintain consistency with Document No. 3113.

G. The Severability statement was renumbered from Section F. to Section G.

**Instructions:**

Replace section 107.17 of R.61-107 in entirety with this amendment.

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### Text:

61-107.17. Solid Waste Management: Demonstration-of-Need.

(Statutory Authority: 1976 Code Sections 44-96-10 et seq.)

### Table of Contents

- A. Applicability.
- B. Definitions for the Purposes of this Regulation.
- C. Demonstration-of-Need Requirements .
- D. Demonstration-of-Need Application Process.
- E. Violations and Penalties.
- F. Appeals.
- G. Severability.

#### A. Applicability.

1. This regulation establishes the criteria for the demonstration-of-need for the construction of new and the expansion of existing commercial Class Two solid waste landfills, commercial Class Three solid waste landfills, commercial solid waste incinerators, and commercial solid waste processing facilities that process waste destined for disposal at Class Three solid waste landfills. Any solid waste management facility type listed herein that no longer has a valid permit to operate prior to the effective date of this regulation and attempts to reopen after the effective date of this regulation shall be considered a new facility and shall be required to demonstrate need pursuant to this regulation. Any existing facility that requests a change in classification or commercial status shall be considered a new facility and required to demonstrate need pursuant to this regulation. Commercial Class Three solid waste landfills permitted to accept only industrial waste that request approval to accept municipal solid waste shall be considered a new facility and required to demonstrate need pursuant to Sections C and D of this regulation.

2. This regulation does not apply to:

a. Class Two solid waste landfills, Class Three solid waste landfills, solid waste incinerators, or solid waste processing facilities that accept only waste generated in the course of normal operations on property under the same ownership or control as the solid waste management facility if the facility is classified as a non-commercial solid waste management facility. All other solid waste management facilities for the purpose of demonstrating need shall be considered commercial facilities;

b. Facilities that handle hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA) and R.61-79, Hazardous Waste Management Regulations, and infectious waste as defined by R.61-105, Infectious Waste Management Regulations;

c. Air curtain incinerators that receive only wood waste and yard trash;

d. The processing of waste at the source of generation; and,

e. The processing of waste at permitted Class Three solid waste landfills destined for disposal at the landfill.

#### B. Definitions for the Purposes of this Regulation.

1. "Class Two solid waste landfills" means those landfills as described in Part IV, Section A of Regulation section 61-107.19. Solid Waste Management: Solid Waste Landfills and Structural Fill.

2. "Class Three solid waste landfills" means those landfills as described in Part V, Subpart A of Regulation section 61-107.19.

3. "Commercial solid waste management facility" means for the purposes of this regulation, all solid waste management facilities with the exception of non-commercial facilities.

4. "County or Regional Solid Waste Management Plan" means a solid waste management plan prepared, approved, and submitted by either a single county or a region, i.e., a group of counties, pursuant to the Solid Waste Policy and Management Act, S.C. Code Section 44-96-80 (1976, as amended).

5. "Consistency determination" means for the purposes of this regulation, a Department decision that a proposed solid waste project is or is not consistent with:

a. State and County/Region Solid Waste Management Plans;

b. Local zoning and land-use ordinances and regulations based on due consideration of written documentation from an appropriate local government official verifying that applicable local requirements have been met;

c. All other applicable local ordinances; and,

d. Buffer requirements pursuant to the appropriate Department regulation, e.g. Regulation sections 61-107.19, Part IV.B.1.a for Class Two solid waste landfills; 61-107.19, Part V, Subpart B.258.18.a for Class Three solid waste landfills; 61-107.12.E.8 for Solid Waste Incinerators; and 61-107.6.E.8 for Solid Waste Processors.

6. "Department" means the South Carolina Department of Health and Environmental Control.

7. "Disposal rate" means the total amount, either by tonnage or volume, of waste received at the solid waste disposal facility on a fiscal year (July 1 – June 30) basis.

8. "Expand" or "Expansion" means any increase in the permitted volumetric capacity of an existing solid waste management facility.

9. "Non-commercial solid waste management facility" means a facility that manages only solid waste that is generated in the course of normal operations on property under the same ownership or control as the solid waste management facility.

10. "Planning area" means the area around a solid waste management facility that is used for determining the need for new and expansions of existing facilities.

11. "Region" means a group of counties which is planning to or has prepared, approved, and submitted a regional solid waste management plan to the Department pursuant to S.C. Code Section 44-96-80 (1976, as amended).

12. "Solid waste" means any garbage, refuse, or sludge from a waste treatment plant, water supply plant, or air pollution control facility and other discarded material, including solid, liquid, semisolid, or contained gaseous material resulting from industrial, commercial, mining and agricultural operations, and from community activities. This term does not include solid or dissolved material in domestic sewage, recovered materials, or solid or dissolved materials in irrigation return flows or industrial discharges which are point

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sources subject to NPDES permits under the Federal Water Pollution Control Act, as amended, or the Pollution Control Act of South Carolina, as amended, or source, special nuclear, or by-product material as defined by the Atomic Energy Act of 1964, as amended. Also excluded from this definition are application of fertilizer and animal manure during normal agricultural operations or refuse as defined and regulated pursuant to the South Carolina Mining Act, including processed mineral waste, which will not have a significant adverse impact on the environment.

13. "Solid waste incinerators" means any engineered device used in the process of controlled combustion of solid waste for the purpose of reducing the volume, and/or reducing or removing the hazardous potential of the waste charged by destroying combustible matter leaving the noncombustible ashes, material and/or residue. For the purposes of this regulation, solid waste pyrolysis facilities, waste-to-energy facilities burning solid waste used for energy recovery, and air curtain incinerators that burn only wood waste and yard trash are not included in this definition.

14. "Solid waste management facilities" means Class Two solid waste landfills, Class Three solid waste landfills, solid waste incinerators, and solid waste processing facilities that process waste destined for disposal at Class Three solid waste landfills.

15. "State Solid Waste Management Plan" means the plan which the Department of Health and Environmental Control is required to submit to the General Assembly and to the Governor pursuant to S.C. Code Section 44-96-60 (1976, as amended).

16. "Solid waste processing facility" means those facilities as defined in Regulation section 61-107.6, Solid Waste Management: Solid Waste Processing Facilities.

### C. Demonstration-of-Need Requirements.

1. No permit to construct a new or to expand the volume or capacity of an existing commercial Class Two solid waste landfill, Class Three solid waste landfill, solid waste incinerator, or solid waste processing facility that processes waste destined for disposal at a Class Three solid waste landfill shall be issued until a final demonstration-of-need and a consistency determination are approved by the Department. In determining whether there is a need for new or expanded solid waste management facilities listed in Section C.2, or in determining increases in annual disposal rates, the Department will consider only solid waste generated in jurisdictions subject to the provisions of a county or regional solid waste management plan pursuant to S.C. Code Section 44-96-80. Any increase in the disposal rate shall not require a demonstration-of-need as long as the requested increase in disposal rate is less than the maximum disposal rate as determined by Section D.3.

2. Need shall be demonstrated for the following commercial solid waste management facilities:

a. Class Two solid waste landfills;

b. Class Three solid waste landfills;

c. Solid waste incinerators; and,

d. Solid waste processing facilities that process waste destined for disposal at Class Three solid waste landfills.

3. Planning Area. The following planning areas shall be used by the Department for determining if the demonstration-of-need has been met for commercial facilities pursuant to this regulation:

Commercial Solid Waste Management Facility	Size of Planning Area Around Solid Waste Management Facility
Class Two solid waste landfills	20-mile radius
Class Three solid waste landfills	75-mile radius
Solid waste incinerators	75-mile radius
Solid waste processing facilities	75-mile radius

4. Requests for demonstration-of-need will be reviewed by the Department in the order in which they are received. If a request for demonstration-of-need is not accompanied by a request for a consistency determination pursuant to Section B.5 of this regulation, and need is demonstrated, the location for the proposed facility will be reserved for sixty (60) days. Failure to submit a consistency request within sixty (60) days of submittal of a demonstration-of-need request will result in termination of the reservation of the location for the proposed facility.

5. Demonstration-of-need determinations issued by the Department may be terminated, upon written notification by the Department, if either of the following occurs:

- a. Failure to show evidence of diligent pursuit of the appropriate solid waste permit or any related necessary approval, including proof of property control, within one hundred twenty (120) days of the applicant’s submittal of the demonstration-of-need request; or,
- b. The Department denies the permit application.

6. Where, prior to the effective date of this regulation, the Department made determinations required under Part I.D.1.a. of South Carolina Regulation 61-107.19, such determinations shall remain applicable and become the agency’s final determination subject to the appeal provision in Section F of this regulation and any applicable public notice and application requirements. All demonstration of need determinations are subject to termination criteria outlined in Sections C.4 and C.5 of this regulation regardless of when the determination was made.

**D. Demonstration-of-Need Application Process.**

1. Prior to submitting a permit application to the Department for a new or expansion of an existing Class Two solid waste landfill, Class Three solid waste landfill, solid waste incinerator, or solid waste processing facility that processes waste destined for disposal at a Class Three solid waste landfill, the applicant shall submit to the Department a demonstration-of-need request that includes the following information:

- a. The name of the facility. This name will be used in future correspondence to identify the facility;
- b. Applicant contact information to include the following:
  - (1) Name of applicant;
  - (2) Address;
  - (3) Telephone number;
  - (4) Fax number; and,
  - (5) E-mail address (optional);

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c. The geographical coordinates of the facility using the geographic center of the incinerator or processing facility as the reference point, or the geometric center of the landfill footprint as the reference point, as well as a brief description of the location. For expansions, the reference point shall be the center of the facility as assigned by the Department. Use either latitude/longitude coordinate system in degrees, minutes and seconds (preferred) or the Universal Transverse Mercator (UTM) coordinate system. Describe the method for determining coordinates;

d. The type facility, i.e., Class Two solid waste landfill, Class Three solid waste landfill, solid waste incinerator, or solid waste processing facility;

e. The annual disposal rate or throughput, as applicable, in tons/year (specify the desired annual tonnage within the applicable limits);

f. The name of the host county/region; and,

g. The applicant's signature.

2. In determining if there is a need for a new or expansion of an existing solid waste management facility, the Department will use the following criteria:

a. Where there are at least two (2) commercial solid waste management facilities of the same type within the planning area, no new capacity shall be allowed. Landfills in post-closure shall not be considered in determining need.

b. The Department reserves the right to review additional factors in determining need on a case-by-case basis.

3. In determining the maximum allowable yearly disposal rate for Class Three or Class Two solid waste landfills, the Department will use the following criteria:

a. Each new Class Three solid waste landfill permitted after the effective date of this regulation shall be initially allowed up to a maximum yearly disposal rate equal to the total amount of solid waste generated in the planning area for disposal in Class Three landfills as follows, unless otherwise provided in section C.6:

(1) 100 percent of the host county; and,

(2) 50 percent of each county, other than the host county, that falls wholly or partially within the 75-mile radius that does not have a Class Three landfill that accepts municipal solid waste located in that county.

(3) Solid waste generated in counties, other than the host county, that have at least one Class Three Landfill, is not counted in this calculation.

b. Each new Class Two solid waste landfill permitted after the effective date of this regulation shall be initially allowed up to a maximum yearly disposal rate equal to the total amount of solid waste generated in the planning area for disposal in Class Two Landfills as follows, unless otherwise provided in section C.6:

(1) 100 percent of the host county; and,

(2) 30 percent of each county, other than the host county, that falls wholly or partially within the 20-mile planning radius.



c. An existing Class Three solid waste landfill operating within 20 percent of the permitted yearly disposal rate stated in the current permit, as documented in the most recently published S.C. Solid Waste Management Annual Report when the request is made, may submit a request for an increase in the permitted yearly disposal rate and will be allowed to increase the maximum yearly disposal rate based on the following:

(1) A Class Three landfill that has a permitted annual disposal rate greater than 30 percent of the total amount of waste generated in all jurisdictions subject to the provisions of a county or regional plan pursuant to S.C. Code Section 44-96-80 that is destined for disposal in Class Three Landfills shall not receive any increase in its yearly annual disposal rate;

(2) A Class Three Landfill that has a permitted annual disposal rate less than or equal to 30 percent pursuant to Section D.3.c(1) shall receive the lesser of either: (a) 150,000 tons or (b) the increase in waste generated by all jurisdictions that are subject to the provisions of a county or regional plan pursuant to S.C. Code Section 44-96-80 for disposal at Class Three Landfills, since the last increase in the permitted annual disposal rate at said landfill, as reported in the most recently published S.C. Solid Waste Management Annual Report when the request is made.

d. An existing Class Two solid waste landfill operating within 20 percent of the permitted yearly disposal rate stated in the current permit, as documented in the most recently published S.C. Solid Waste Management Annual Report when the request is made, shall be allowed to increase the maximum yearly disposal rate based on the following:

(1) The lesser of either: (a) 50,000 tons or (b) the increase in waste generated in the planning area for disposal at Class Two landfills, since the last increase in the permitted annual disposal rate for said landfill, as reported in the most recently published S.C. Solid Waste Management Annual Report when the request is made or,

(2) A variance to the permitted annual disposal rate may be granted for a specified term, corresponding to the need, in the event of an emergency or documented large project with a specified term, as determined solely by the Department. This temporary increase in annual disposal rate, if granted, is not considered by the Department when determining if a facility is within 20 percent of its permitted annual disposal rate.

e. In determining the amount of solid waste destined for disposal and solid waste generation amounts, the Department will use figures reflecting the previous fiscal year amount of solid waste as reported in the most recently published S.C. Solid Waste Management Annual Report, when the request is made, for the appropriate waste, (e.g. Class Two, Class Three, etc.). Annual disposal rates for facilities permitted prior to the effective date of this regulation shall not be reduced pursuant to Section D of this regulation.

4. The maximum allowable yearly throughput of a solid waste processing facility that processes waste destined for disposal at a Class Three solid waste landfill shall be equal to the total amount of solid waste destined for disposal that is generated in the host county and 50 percent of the waste generated in each county other than the host county, that falls wholly or partially within the 75-mile planning radius.

5. The yearly throughput for a solid waste incinerator shall be based on the manufacturer's design of the incinerator but shall not exceed 600 tons per day.

6. Variance in regard to demonstration of need. The Department shall grant a variance to the requirements of D.2 for Class Two and Class Three solid waste landfills according to the following conditions:

a. An operating Class Two or Class Three landfill shall receive a variance to construct a replacement Class Two or Class Three landfill at its permitted annual rate of disposal provided it meets all of the following conditions:

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(1) For a Class Three landfill only, the primary business of the landfill since it began operation has been the disposal of “household waste” and “commercial waste” as defined in S.C. Regulation section 61-107.19.

(2) The landfill has a permit issuance date on or before the effective date of this Regulation.

(3) The landfill exhausts its permitted capacity at its current location (see 6.e below for timing).

(4) For the purpose of considering the location of a replacement facility under this section, the location for the replacement facility must be within the facility’s existing planning area, provided that, if the planning area includes a portion of a county, the entire county will be considered to be part of the planning area. A Class Two or Class Three landfill, once replaced as provided for in Section D. 6.a., is no longer eligible to receive a variance for replacement under this section.

b. A Class Two or Class Three landfill shall receive a variance to expand the volume of an existing facility.

c. A facility receiving a variance under this section must meet the requirements of S.C. Regulation section 61-107.19 prior to receiving a permit.

d. No variance under this section will be granted to a facility that is under a unilateral administrative order issued by the Department until the issues associated with said order have been resolved.

e. An eligible facility shall apply to the Department for a variance to replace or expand the volume of an existing facility prior to exhausting: (1) its permitted capacity, or (2) the operational life of the facility. A facility shall not operate under an expansion variance and a replacement variance simultaneously, with the exception of a reasonable transition period as determined by the Department. A reasonable transition period is considered to be approximately one hundred eighty (180) calendar days.

7. The Department will advise the applicant and the host county or region in writing of its demonstration-of-need determination. Notice of the Department’s demonstration-of-need determination for Class Two and Three landfills must be given in accordance with S.C. Regulation section 61-107.19.

### E. Violations and Penalties.

A violation of this regulation or violation of any permit, order, or standard subjects the person to the issuance of a Department order, or a civil or criminal enforcement action in accordance with S.C. Code Section 44-96-450 (1976, as amended). In addition, the Department may impose reasonable civil penalties not to exceed ten thousand dollars (\$10,000.00) for each day of violation of the provisions of this regulation, including violation of any order, permit or standard.

### F. Appeals.

1. A Demonstration-of-need determination may be appealed at the time such determination is issued and may not be raised as part of an appeal of a decision on the permit.

2. A Department decision involving a demonstration-of-need may be appealed by an affected person with standing pursuant to applicable law, including S.C. Code Title 44, Chapter 1; and Title 1, Chapter 23.

### G. Severability.

Should any section, paragraph, sentence, word, clause or phrase of this regulation be declared unconstitutional or invalid for any reason, the remainder of this regulation shall not be affected thereby.

**Fiscal Impact Statement:**

Staff anticipates there will be no increased costs to the State or its political subdivisions.

**Statement of Need and Reasonableness:**

This Statement of Need and Reasonableness was determined by staff analysis pursuant to S.C. Code Section 1-23-115(C)(1)-(3) and (9)-(11).

**DESCRIPTION OF THE REGULATION:**

**Purpose:** This amendment updates, streamlines and clarifies requirements addressing demonstration-of-need and makes this regulation section consistent with the changes in State Register Document No. 3113 that amended R.61-107, Solid Waste Management, effective May 23, 2008. This amendment also revises the size of the planning areas around solid waste facilities, reduces and caps the maximum allowable annual disposal rate, reduces the number of available locations for solid waste disposal facilities, revises certain definitions, and expands the scope of the regulation by defining needs determination criteria for other types of solid waste.

**Legal Authority:** S.C. Code Sections 44-96-10 et seq.

**Plan for Implementation:** This amendment will be incorporated into R.61-107, Solid Waste Management, upon approval by the Board of Health and Environmental Control, the General Assembly and publication in the State Register. The amended regulation will be implemented in the same manner in which other regulations are implemented.

**DETERMINATION OF NEED AND REASONABLENESS OF THE REGULATION BASED ON ALL FACTORS HEREIN AND EXPECTED BENEFIT:**

This amendment is needed for consistency with the changes proposed in State Register Document 3113 that took effect as law on May 23, 2008. Document No. 3113 simultaneously repealed four existing solid waste landfill sections and replaced them with new Section 61-107.19 that addresses all solid waste landfills and structural fill activities. R.61-107.17 must be amended to revised requirements and terminology that coincides with that used in R.61-107.19. This includes requiring appeals on demonstration-of-need in the first phase of the permitting process. This precludes applicants from investing large sums on a project, e.g., drafting plans, until the demonstration-of-need issue is completed. It also allows public notification of a proposed project in the early stages of the permitting process.

This amendment is needed to ensure there are a sufficient number of solid waste management facilities to meet the State's needs without allowing an over abundance in some areas. There are a number of processing facilities and air curtain incinerators that burn waste other than wood waste and yard trash concentrated in specific areas of the State. Requiring demonstration-of-need for these facilities will ensure these types of facilities are placed in areas of need in the State.

This amendment is needed to help lower and establish a cap on the over-all maximum allowable disposal rate in the State by changing the criteria for demonstrating need for Class Two and Class Three solid waste landfills. When there are two commercial facilities in a planning area that meet the disposal needs for the area, no new capacity is allowed. The existing regulation does not take into account all the tonnage available in the non-commercial landfills, e.g., many county-owned landfills. Making a distinction between commercial and non-commercial landfills and ignoring the non-commercial landfills when determining need results in an excess of disposal capacity that exceeds the needs of the planning area. Revising the regulation to treat all facilities as "commercial", with the exception of on-site facilities, will help to lower the over-all allowable disposal rate in the State.

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This amendment is reasonable because it helps preserve the State's natural resources by limiting the number of solid waste facilities, and by lowering the over-all maximum allowable disposal rate in Class Two and Class Three solid waste landfills while ensuring the availability of adequate long-term disposal capacity to meet the State's solid waste disposal needs at a reasonable cost. It gives all commercial facilities the same advantages while lowering the over-all allowable disposal rate in the State.

A workgroup comprised of representatives from the solid waste disposal industry (small and large businesses), Association of Counties, solid waste regions, municipalities, environmental groups, environmental consultants, and Department staff developed the criteria on which the amendment is based. All comments received during the public comments periods and during the public hearing before the Department's Board were considered.

### DETERMINATION OF COSTS AND BENEFITS:

Internal Costs: Implementation of this regulation should not require additional resources.

External Benefits: There will be a benefit to the regulated community by requiring demonstration-of-need and appeals on demonstration-of-need in the first phase of the permitting process, in that applicants will not invest large sums on the project (e.g., drafting plans) until the demonstration-of-need issue is completed. There will be a benefit to the public by requiring public notification of proposed solid waste facilities up front. Counting all solid waste management facilities as commercial, except for on-site facilities, will result in more accurate planning within the county/region.

### UNCERTAINTIES OF ESTIMATES:

None.

### EFFECT ON THE ENVIRONMENT AND PUBLIC HEALTH:

This amendment adds demonstration-of-need requirements for solid waste processing facilities and air curtain incinerators that burn waste other than wood waste and yard trash. Demonstration-of-need and planning areas ensure fewer, better managed solid waste management facilities are placed throughout the State to ensure that each county has the facilities to meet its needs without an over abundance of similar facilities.

The cap on the overall allowable disposal rate in the State will help protect the State's natural resources. Demonstration-of-need limits the number of solid waste management facilities which normally results in larger, more efficiently operated facilities.

### DETRIMENTAL EFFECT ON THE ENVIRONMENT AND PUBLIC HEALTH IF THIS AMENDMENT IS NOT IMPLEMENTED:

There will be a larger overall allowable disposal rate in the State, which may encourage the importation of waste from other states. If solid waste processing facilities and air curtain incinerators that fall under the purview of this amendment are not required to demonstrate need, there may continue to be a concentration of these facilities in the State and other areas in need of these types of facilities.

### Statement of Rationale:

This amendment updates and clarifies requirements addressing demonstration of need. It includes revision of the size of the planning areas around solid waste facilities, it lowers and caps the overall allowable disposal rate in the State, it reduces the number of possible locations available for solid waste management facilities, it expands the scope of the regulation by defining needs determination criteria for other types of solid waste facilities, and other related changes.

Representatives from the solid waste disposal industry (small and large businesses), Association of Counties, solid waste regions, municipalities, environmental group, and environmental consultants worked with Department staff to define the scope of this proposed amendment and develop reasonable criteria while maintaining protection of the environment and public health. See the Statement of Need and Reasonableness above for more information regarding the factors influencing the decision to revise the regulation.

Document No. 4013

**DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL**  
**CHAPTER 61**

Statutory Authority: 1976 Code Section 44-7-250

61-17. Standards for Licensing Nursing Homes

**Synopsis:**

South Carolina Code Ann. Section 1-23-120.J directs that staffs of State agencies review their regulations every five years and update them if necessary. Regulation 61-17 was last amended June 27, 2008, but did not include an increase in licensing fees. The last amendment of this regulation to increase licensing fees was February 28, 1992. Since 1992, there have been increases in costs that have necessitated amendment of this regulation in order to make fees more up-to-date and commensurate with current expenditure needed to enforce the regulations.

Discussion of Revision:

202.A. This subsection addresses licensing fees (increasing from \$10.00 per licensed bed to \$20.00 per licensed bed and adding “or \$400.00, whichever is greater”).

**Instructions:**

Revise R.61-17 by replacing Section 202.A with the text of the amendment provided below.

**Text:**

202. License Fees

A. Licensing Fees. A nonrefundable initial and annual licensing fee of twenty dollars (\$20.00) per licensed bed, or four hundred dollars (\$400.00), whichever is greater, shall be submitted to the Department. Such fee shall be made payable by credit card, check or money order to the Department.

**Fiscal Impact Statement:**

There will not be cost to the Department, the State and its political subdivisions. There will be costs to the regulated community. See Statement of Need and Reasonableness below.

**Statement of Need and Reasonableness:**

This statement of need and reasonableness was determined by staff analysis pursuant to the S.C. Code Ann. Sections 1-23-115(C)(1)-(3) and (9)-(11) (2005).

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DESCRIPTION OF REGULATION: Regulation 61-17, Standards for Licensing Nursing Homes.

Purpose of the Regulation: Revision of this regulation is to increase licensing fees from \$10 per licensed bed to \$20 and to add a minimum of \$400, whichever of the two (\$20 per licensed bed or \$400) is greater.

Legal Authority: S.C. Code Ann. Section 44-7-250 (2002).

Plan for Implementation: This amendment takes effect upon publication in the *State Register* following approval by the Board of Health and Environmental Control and the S.C. General Assembly. The amendment will be implemented by providing the regulated community with copies of the regulation or by correspondence and enforced through the internal procedures for initial and annual licensing established by the Department.

### DETERMINATION OF NEED AND REASONABLENESS OF THE REGULATION AMENDMENT BASED ON ALL FACTORS HEREIN AND EXPECTED BENEFITS:

This regulation revision is needed and reasonable because its development will satisfy a legislative mandate pursuant of S.C. Code Ann. Section 1-23-120 (J) to review Department regulations every five years and amend them as needed.

The regulation was last amended to increase licensing fees February 28, 1992. Since that time there have been increases in costs that have led to the necessity to amend these regulations in order to make fees more up-to-date and commensurate with current expenditure needed to enforce the regulations.

### DETERMINATION OF COSTS AND BENEFITS:

There will be no cost to political subdivisions of the state. There will be minimal costs to the regulated community. The fee increase from \$10 to \$20 per licensed bed per year or \$400, whichever greater, is not excessive on a per license basis.

Processing applications for the nursing home licensing program requires considerable commitment of the Department's fiscal resources. Inflation has increased the costs associated with inspections, investigations, processing licenses, and travel. Program costs have been incurred for increased confidentiality requirements of Department records, all contributing to an overall increase in costs to run an effective program. The anticipated growth of elderly citizens needing nursing home care in South Carolina will increase the demands on Department staff and resources. In addition, in expanding its enforcement of the regulation, the Department has increased its onsite consultation efforts to foster regulatory compliance and such activity is an added cost.

Without the increase in licensing fee, the program's ability to continue service to the state's nursing home providers and residents in a timely, effective and efficient manner may be compromised.

Nursing home fees have not increased since 1992. Since FY 1999, the fees have generated less money than needed to operate the program. The program remains under funded until such time as a fee increase is authorized.

Monies generated over and above the costs of the current program go into the general fund to cover the costs of inflation and increased costs incurred over the years. According to the U.S. Department of Labor, Bureau of Labor Statistics, costs have increased on average approximately 3% per year since 1992, and the first six months of 2008 the Consumer Price Index reflected a 4.7% increase. With the probable continued increases in costs, the proposed fee increase is both reasonable and necessary.

### UNCERTAINTIES OF ESTIMATES:

None.

**EFFECT ON ENVIRONMENT AND PUBLIC HEALTH:**

There will be no effect on the environment. The regulation revision will promote public health by updating licensing fees giving the additional resources needed in regulating nursing homes.

**DETRIMENTAL EFFECT ON THE ENVIRONMENT AND PUBLIC HEALTH IF THE REGULATION IS NOT IMPLEMENTED:**

There will be an adverse effect on the public health if the regulation revision is not implemented since it is likely that continuing to provide inadequate funding of the program may impact the Department's ability to adequately enforce the regulation, ultimately resulting in possible negative health outcomes. There will be possible detrimental effect on public health in general and vulnerable adults specifically because the program may not have the resources to continue vigilant regulatory oversight of nursing home facilities in a timely, effective and efficient manner.

**Statement of Rationale:**

Department staff determined during its review of R.61-17 that it was appropriate to revise the regulation. R.61-17 was last amended to increase licensing fees in 1992. See the Synopsis and Statement of Need and Reasonableness above for more information regarding the factors influencing the Department's decision to revise the regulation.

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Document No. 3226

### DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL

#### CHAPTER 61

Statutory Authority: 1976 Code Sections 13-7-10 et seq., 13-7-40 and 13-7-45

61-64. X-rays (Title B)

#### Synopsis:

Regulation 61-64, X-rays (Title B), is authorized by the Atomic Energy and Radiation Control Act at S.C. Code Ann. Section 13-7-10 et seq. and was last amended on June 27, 2003. This regulation provides for radiation control and applies to all persons who receive, possess, use, transfer, own, or acquire any x-ray producing machine. The cost of running the program to implement the provisions of this regulation is funded by the collection of fees from the regulated community as mandated by the Act.

As a result of the 2007 statutory five-year review of this regulation and due to advancing technologies in x-ray equipment and facilities that utilize x-ray equipment, the Department has substantially amended R.61-64. These amendments will strengthen equipment performance standards. Language changes were made to clarify many sections of the regulation by making them more specific, better organized, and the intent of the regulation more clear.

This amendment adds an application fee for x-ray vendors. Also, x-ray facilities that are located out-of-state that want to operate temporarily in the State of South Carolina will be required to meet application and registration fee requirements. A Mammography follow-up inspection fee was also added.

See Section-by-Section Discussion below and the Statement of Need and Reasonableness herein for more detailed information on these amendments.

#### Section-by-Section Discussion of Revisions:

##### Table of Contents

The Table of Contents was revised pursuant to changes.

##### Part I - General Provisions

###### R.61-64 RHB 1.2.3

This section was revised to change used for clarification of registering x-ray equipment with the Department. Text deleted "for any person". Text added "facility".

###### R.61-64 RHB 1.2.8

The section was revised to delete a requirement in the last sentence: "This prohibition does not apply to "mini" c-arms specifically designed to be hand held".

###### R.61-64 RHB 1.2.10

This Section was revised to add new wording to specify requirements for a Licensed Practitioner based on the South Carolina Department of Labor, Licensing, and Regulation.

###### R.61-64 RHB1.2.14

This section was added to require all vendors that make, sell, lease, transfer, lend, repair or install x-ray equipment in South Carolina must ensure the equipment meets the requirements in the regulations. The vendor must also be registered with the Department.



**R.61-64 RHB 1.3.4**

A new subsection item was added to allow Department Inspectors to be on site and possibly present during an invasive x-ray procedure.

**R.61-64 RHB 1.4.4**

A new subsection item was added to address all aspects related to Radiation Survey Instruments. Stipulations on operating range(s), calibration frequency that is traceable to a national standard, records of calibrations, procedures for operating the survey instrument, competence in using the instrument, and response checks are all addressed beginning in Section 1.4.4.

**R.61-64 RHB 1.4.4.1**

A new subsection subitem was added ensuring that the survey meter must have a minimum operating range consistent with the radiation field being measured.

**R.61-64 RHB 1.4.4.2**

A new subsection subitem was added requiring that the survey meter must be maintained annually.

**R.61-64. RHB 1.4.4.2.1**

A new subsection subitem was added requiring the survey meter to be calibrated at intervals not to exceed twelve months and after instrument servicing.

**R.61-64 RHB 1.4.4.2.2**

A new subsection subitem was added requiring the survey meter to be calibrated with an accuracy of twenty percent that is traceable to a national standard.

**R.61-64 RHB 1.4.4.2.3**

A new subsection subitem was added requiring the survey meter to be calibrated at two or more widely separated points, other than zero on each scale.

**R.61-64 RHB 1.4.4.2.4**

A new subsection subitem was added requiring the survey meter to be calibrated according to the manufacturer's specifications.

**R.61-64 RHB 1.4.4.2.5**

A new subsection subitem was added requiring that records of the calibrations must be maintained for inspection by this Department.

**R.61-64 RHB 1.4.4.3**

A new subsection subitem was added requiring written procedures be created and available for the proper operation of the survey meter.

**R.61-64 RHB 1.4.4.3.1**

A new subsection subitem was added requiring that the operator of the survey meter must adhere to the manufacturer's instructions.

**R.61-64 RHB 1.4.4.3.2**

A new subsection subitem was added requiring the user of the instrument demonstrate competence with following these instructions.

**R.61-64 RHB 1.4.4.3.3**

A new subsection subitem was added requiring that documentation must be maintained and available indicating that the user has read, agrees, and will adhere to the operating instructions.

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### R.61-64 RHB 1.4.4.3.4

A new subsection subitem was added to require the survey meter to incorporate the use of a check source.

### R.61-64 RHB 1.6.3

Additional wording was added to include vendors. This will ensure that the facility and vendor will provide the Department a listing of manufacture's specifications for x-ray equipment not specifically covered in these regulations.

### R.61-64 RHB 1.6.4.2

Changed the word "Recommend" to "develop and implement". This change will enable the facility to ensure that they have an effective radiation safety program.

### R.61-64 RHB 1.7.2

The numerical number 20 was added after the word "twenty" for stylistic consistency in the regulation.

### R.61-64 RHB 1.8.1.2

Wording was deleted requiring the Department to send a certified letter to the facility when they fail to comply with the findings outlined in the inspection report. This would allow the Department to seek further enforcement actions if a facility failed to correct the violations.

### R.61-64 RHB 1.8.1.3

In conjunction with subsection subitem 1.8.1.2, and to clarify the point that the facility must comply with the regulations, the words "certified letter" were deleted. The word "regulations" was added.

### R.61-64 RHB 1.8.1.3.1.2

Typographical error, duplicate numbers. Changed to subsection subitem 1.8.1.3.1.3.

### R.61-64 RHB 1.8.1.3.1.3

For sequential numbering, subsection subitem 1.8.1.3.1.3 was changed to subsection subitem 1.8.1.3.1.4.

### R.61-64 RHB 1.9.1

This is in reference to a facility complying with the regulations. Clarification change in wording. The word "observe" (these regulations) was deleted. The words "comply with" (these regulations) were added.

### R.61-64 RHB 1.10.2.1

The word "and" was added for a grammatical change. Vertical cassette holders and tables were deleted. It is no longer necessary to maintain the model number and serial number of these devices.

### R.61-64 RHB 1.10.2.4

For clarification the word "calibrations" was deleted. The words "equipment performance tests" were added. Additionally, the facility can maintain records for five years, and additional wording was added to allow an option: "or the next Department inspection, whichever is later".

### R.61-64 RHB 1.10.3

Additional inventory requirements were added for facilities that possess more than ten x-ray machines. The new additions include model number, serial number, shielding acceptance number (if applicable), and date of the last equipment performance test.

### R.61-64 RHB 1.11.1

New text allowing the x-ray registrants to send therapy misadministrations by fax or electronic mail.

### R.61-64 RHB 1.13.3

This subsection item was revised to correct references to other sections of this regulation.

R.61-64 RHB 1.13.4.1

Correction of typographical error. “Willfullness” corrected to “Wilfulness”.

R.61-64 RHB 1.13.4.2.6, RHB 1.13.4.2.7, and RHB 1.13.4.2.8

These subsection subitems were revised to correct references to other sections of this regulation.

R.61-64 RHB 1.13.4.2.10

This subsection subitem was revised to correct a reference to another section of this regulation.

R.61-64 RHB 1.13.4.3 and RHB 1.13.4.4

These subsection subitems were revised to correct references to other sections of this regulation. Text was also revised for clarification of equipment performance tests and to correct grammatical errors. Text was added for clarification of healing arts screening programs.

R.61-64 RHB 1.16

A subsection item was added to reflect the appeal process.

Part II - Registration of X-Ray Machines and Services

R.61-64 RHB 2.3.1

This subsection item was revised to add text to clarify the application fee of this section refers to the facilities.

R.61-64 RHB 2.3.2

This subsection item was revised to change the word “approval” to “acceptance.”

R.61-64 RHB 2.3.3

A new subsection item was added to require a non-refundable vendor application fee of \$62.50 upon submission of a “Business Registration Approval Request” form. This provision was added to help recover the cost of the vendor review process.

R.61-64 RHB 2.3.4

A new subsection item was added to require a non-refundable out-of-state facility application fee of \$62.50 upon submission of an “Out-of-State Facility” form. This provision was added to help recover the cost of the out-of-state facility review process.

R.61-64 RHB 2.4.1.1.4, RHB 2.4.1.1.5 and RHB 2.4.1.1.6

These subsection subitems were revised to correct references to other sections of this regulation.

R.61-64 RHB 2.4.2.1.4 and RHB 2.4.2.1.5

These subsection subitems were revised to correct references to other sections of this regulation.

R.61-64 RHB 2.4.2.1.7

This subsection subitem was revised to correct a reference to another section of this regulation.

R.61-64 RHB 2.4.3.1.4 and RHB 2.4.3.1.5

These subsection subitems were revised to correct references to other sections of this regulation.

R.61-64 RHB 2.6.1.1 and RHB 2.6.1.2

These new subsection subitems were added to clarify the requirements for the registration of in-house service personnel.

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### **R.61-64 RHB 2.6.2.5**

This subsection subitem was revised to clarify which vendor class needs to submit sample equipment performance test procedures and forms.

### **R.61-64 RHB 2.6.2.6**

This subsection subitem was revised to clarify which vendor classes need to submit a sample shielding plan.

### **R.61-64 RHB 2.6.5**

This subsection item was revised to clarify the DHEC forms to be submitted and to clarify what vendor changes must be submitted to the Department.

### **R.61-64 RHB 2.6.6.3.1 and RHB 2.6.6.3.2**

These subsection subitems were revised to clarify vendor training requirements.

### **R.61-64 RHB 2.6.6.4.1 and RHB 2.6.6.4.2**

These subsection subitems were revised to clarify vendor training requirements.

### **R.61-64 RHB 2.6.6.5.2**

RHB 2.6.6.5.4 was renumbered to RHB 2.6.6.5.1 and was revised to clarify vendor-training requirements and to make wording consistent with other requirements of this part.

### **R.61-64 RHB 2.6.6.5.2**

This subsection subitem was broken down into further subsection subitems to clarify vendor training requirements.

### **R.61-64 RHB 2.6.6.5.3**

This new subsection subitem was moved from RHB 2.6.6.5.2 to better clarify vendor training requirements.

### **R.61-64 RHB 2.6.6.6.1**

This subsection subitem was revised to clarify when a vendor is required to possess a radioactive materials license.

### **R.61-64 RHB 2.6.6.9.1 and RHB 2.6.6.9.2**

These subsection subitems were revised to clarify vendor training requirements.

### **R.61-64 RHB 2.6.6.11**

The text of RHB 2.6.6.11 was deleted in its entirety to prevent persons not meeting vendor training requirements for a Class IX vendor to apply to the Department for equivalent training.

### **R.61-64 RHB 2.6.6.13**

RHB 2.6.6.13 was renumbered to RHB 2.6.6.12 and references were revised.

### **R.61-64 RHB 2.7.1.4**

This subsection subitem was revised to remove the ability of a vendor to be exempted from monthly reporting.

### **R.61-64 RHB 2.7.3.4**

This subsection subitem was revised to require a legible signature of the service person on service records.

### **R.61-64 RHB 2.7.3.6**

This subsection subitem was broken down into a title and subsection subitems to clarify records of equipment performance testing. Text was also added to require a legible signature of the service person, the serial and model number of the equipment, and the location of the equipment.

R.61-64 RHB 2.7.5.1

This subsection subitem was changed to outline the calibration frequency of twelve months for survey meters only.

R.61-64 RHB 2.8

This title and text was revised to change “X-Ray Machines” to “Facilities” to be consistent with other parts of this regulation. Subsection subitems were revised to clarify the out-of-state facilities notification process. Text was also revised to require a five working day notification before the facility uses the machine in this state.

R.61-64 RHB 2.9.3

This subsection item was revised to reflect the appeal process.

R.61-64 RHB 2.10.1

This subsection item was revised to require out-of-state facilities to pay an annual flat fee. This provision was added to help recover the cost of the out-of-state facility inspection process.

R.61-64 RHB 2.10.5

This subsection item was revised to require out-of-state facilities to pay certain fees.

R.61-64 RHB 2.10.6

This subsection subitem was revised to add the text “and/or PET/CT Scanner” that addresses new technology. This subsection subitem was also revised to require out-of-state facilities to pay an annual flat fee of \$156.25. This provision was added to help recover the cost of the out-of-state facility inspection process.

Part III - Standards for Protection Against Radiation

R.61-64 RHB 3.3

A heading was added to RHB 3.3 to clarify the intent of the section on authority and responsibility for the Radiation Protection Program.

R.61-64 RHB 3.3.4

A new subsection item was added to provide responsibilities of the Radiation Safety Officer.

R.61-64 RHB 3.3.4.1

A new subsection subitem was added to provide responsibilities of the Radiation Safety Officer to include identification of radiation safety problems.

R.61-64 RHB 3.3.4.2

A new subsection subitem was added to provide responsibilities of the Radiation Safety Officer to include corrective actions.

R.61-64 RHB 3.3.4.3

A new subsection subitem was added to provide responsibilities of the Radiation Safety Officer.

R.61-64 RHB 3.3.4.4

A new subsection subitem was added to provide responsibilities of the Radiation Safety Officer to include implementation of corrective action.

R.61-64 RHB 3.3.5

A new subsection item was added to establish investigative limits on individual annual occupational exposure.

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### **R.61-64 RHB 3.4.1.3**

A new subsection subitem was added to provide limitations when an individual exceeds their annual occupational exposure limit.

### **R.61-64 RHB 3.11**

This section title was revised to delete “and Monitoring” since it is not accurate for this section.

### **R.61-64 RHB 3.12**

A new section specific to personnel monitoring was added and parts of section 3.11 were moved to section 3.12.

### **R.61-64 RHB 3.12**

RHB 3.12 was revised and renumbered to subsection to RHB 3.12.3 and revised to delete “Individual” since it is not necessary for clarity.

### **R.61-64 RHB 3.12.3.1**

A new subsection subitem was added to delineate use of personnel monitoring devices.

### **R.61-64 RHB 3.12.3.1.1**

A new subsection subitem was added to address assignment of personnel monitoring devices.

### **R.61-64 RHB 3.12.3.1.2**

A new subsection subitem was added to address the location of the monitoring device when a lead apron is worn.

### **R.61-64 RHB 3.12.3.1.3**

A new subsection subitem was added to address a lost or damaged device.

### **R.61-64 RHB 3.12.3.2**

A new subsection subitem was added to address the use of control badges.

### **R.61-64 RHB 3.12.3.3**

A new subsection subitem was added, based on Department approval, to allow for the use of area monitors in lieu of personnel monitoring devices.

### **R.61-64 RHB 3.12.4.1.3**

This subsection subitem was revised to include fluoroscopic procedures as high or very high radiation areas.

### **R.61-64 RHB 3.12.4.1.3.1**

A new subsection subitem was added to address the use of personnel monitoring devices during any fluoroscopic procedure.

### **R.61-64 RHB 3.12.5**

A heading was added to the subsection of RHB 3.12.5 and was broken down into subsection subitems to further clarify the criteria for Determination of Dose.

### **R.61-64 RHB 3.12.5.1**

A new subsection subitem was added to address the use of two monitoring devices, and which device is the dose of record.

### **R.61-64 RHB 3.12.5.2**

A new subsection subitem was added to address the use of an Effective Dose Equivalent upon Department consideration.

R.61-64 RHB 3.12.5.2.1

A new subsection subitem was added to address the documentation required for Department consideration for the use of the Effective Dose Equivalent as the dose of record.

R.61-64 RHB 3.12.5.2.2

A new subsection subitem was added to require the submission and approval of the required documentation by the Department.

R.61-64 RHB 3.12.5.2.3

A new subsection subitem was added to address the revocation of approval of the use of the Effective Dose Equivalent as the dose of record.

R.61-64 RHB 3.12.5.3

A new subsection subitem was added to address adjustments to the dose of the permanent record.

R.61-64 RHB 3.12.6

RHB 3.12.3 was renumbered to RHB 3.12.6 and revised to address the processing and evaluation of fetal badge.

R.61-64 RHB 3.15.1

The subsection was revised to include the correct symbol.

R.61-64 RHB 3.17.3

A new subsection subitem was added to address the retention of records including legibility, format, and safeguards.

R.61-64 RHB 3.20.3.2

The subsection was revised to correct a reference to an outdated form.

R.61-64 RHB 3.20.4

The subsection was revised to correct a reference to an outdated form.

R.61-64 RHB 3.20.6

The subsection was revised to correct a reference to an outdated form.

R.61-64 RHB 3.22.3

The subsection was revised to correct a reference to an outdated form.

R.61-64 RHB 3.24

This section was deleted in its entirety since it is addressed in a previous section subitem (RHB 3.17.3).

R.61-64 RHB 3.25.2

RHB 3.26.2 was renumbered to RHB 3.25.2 and revised to clarify the content of the report of exposures and radiation levels exceeding the specified limits.

R.61-64 RHB 3.25.2.1

RHB 3.26.2.1 was renumbered to RHB 3.25.2.1 and revised to address a description of the event.

R.61-64 RHB 3.25.2.1.1

A new subsection subitem was added to include estimates of each individual's dose.

R.61-64 RHB 3.25.2.2

RHB 3.26.3 was renumbered to 3.25.2.2 and revised to correct reference to a previous section.

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### Part IV - Use of X-Ray in the Health Professions

#### R.61-64 RHB 4.2.1

This subsection item was deleted in entirety since it is addressed in a previous section (2.6.1).

#### R.61-64 RHB 4.2.3.6

RHB 4.2.3.6 was renumbered to RHB 4.2.2.6 and revised to allow the registrant to post a notice to the public that certificates are available upon request.

#### R.61-64 RHB 4.2.3.7

RHB 4.2.3.7 was renumbered to RHB 4.2.2.7 and was revised to clarify acceptable documentation for facility specific training.

#### R.61-64 RHB 4.2.3.8

RHB 4.2.3.8 was renumbered to RHB 4.2.2.8 and references were revised.

#### R.61-64 RHB 4.2.6, RHB 4.2.6.1 and RHB 4.2.6.2

These subsection items have been deleted to prevent the ability of the Department to waive compliance.

#### R.61-64 RHB 4.2.8.2

This subsection item was deleted to remove the requirement of stating the film or film screen combination used on the technique chart.

#### R.61-64 RHB 4.2.8.4

This subsection item was deleted to remove the requirement of stating the type and placement of patient shielding to be used.

#### R.61-64 RHB 4.2.8.5

This subsection item was deleted to remove the requirement of the technique charts with automatic exposure control to include the densities and detectors to be used.

#### R.61-64 RHB 4.2.8.6

RHB 4.2.8.6 was renumbered to RHB 4.2.6.3 and was revised to clarify technique chart requirements of AEC systems operated in manual mode. Text was revised to correct reference to other parts of this regulation.

#### R.61-64 RHB 4.2.9

RHB 4.2.9 was renumbered to RHB 4.2.7 and was revised to delete repetitive wording and the requirement of medical consideration for pregnant patients.

#### R.61-64 RHB 4.2.10

RHB 4.2.10 was renumbered to RHB 4.2.8 and was revised to include "and apparel" to the protective equipment requirements.

#### R.61-64 RHB 4.2.11.3

RHB 4.2.11.3 was renumbered to RHB 4.2.9.3 and was revised to change "patients" to "persons." Text was revised to change "0.25" to "0.5" to be consistent with other sections of this part.

#### R.61-64 RHB 4.2.12

RHB 4.2.12 was renumbered to RHB 4.2.10 and was revised to delete the word "human."

#### R.61-64 RHB 4.2.14.1

RHB 4.2.14.1 was renumbered to RHB 4.2.12.1 and was revised to delete the requirement of listing individual projections where holding devices cannot be used.



R.61-64 RHB 4.2.14.2

RHB 4.2.14.2 was renumbered to RHB 4.2.12.2 and was revised to change “safety” to “operating” to clarify the procedures and references were revised.

R.61-64 RHB 4.2.14.3

RHB 4.2.14.3 was renumbered to RHB 4.2.12.3 and a reference was revised.

R.61-64 RHB 4.2.14.4

RHB 4.2.14.4 was renumbered to RHB 4.2.12.4 and was revised to clarify patient holding requirements.

R.61-64 RHB 4.2.14.7

RHB 4.2.14.7 was renumbered to RHB 4.2.12.7 and was revised to delete the requirement of annual inspection and documentation of lead aprons. The Department has determined this was an unnecessary regulation.

RHB 4.2.15.3 was renumbered to RHB 4.2.13.3 and was revised to clarify mobile dental equipment is exempt from this requirement.

R.61-64 RHB 4.2.16.1.2

RHB 4.2.16.1.2 was renumbered to RHB 4.2.14.1.2 and a reference was revised.

R.61-64 RHB 4.2.17

RHB 4.2.17 was renumbered to RHB 4.2.15 and was broken down into a title and subsection subitems to clarify x-ray log requirements.

R.61-64 RHB 4.2.15.1

A new subsection subitem was added to require the x-ray log to contain the identification of the operator performing the examination.

R.61-64 RHB 4.2.15.2, RHB 4.2.15.3, RHB 4.2.15.4 and RHB 4.2.15.5

These new subsection subitems were moved from RHB 4.2.17 to better clarify x-ray log requirements.

R.61-64 RHB 4.2.18.1.3.1

RHB 4.2.18.1.3.1 was renumbered to RHB 4.2.16.1.3.1 and was revised to require dental x-ray equipment to be tested every two years.

R.61-64 RHB 4.2.18.1.3.3

RHB 4.2.18.1.3.3 was renumbered to RHB 4.2.16.1.3.3 and language was added requiring veterinary facilities to have equipment performance tests performed every five years.

R.61-64 RHB 4.2.18.4

RHB 4.2.18.4 was renumbered to RHB 4.2.16.4 and a heading was added. The regulation was also broken down into subsection subitems to clarify repeat analysis requirements.

R.61-64 RHB 4.2.16.4.1, RHB 4.2.16.4.2, RHB 4.2.16.4.3 and RHB 4.2.16.4.4

These new subsection subitems were moved from RHB 4.2.18.4 to better clarify repeat analysis requirements.

R.61-64 RHB 4.2.16.4.5

A new subsection subitem was added to allow single operator facilities to document repeat analysis in the patient log.

R.61-64 RHB 4.2.6.4.6

A new subsection subitems was moved from RHB 4.2.18.4 to better clarify repeat analysis requirements.

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### R.61-64 RHB 4.2.19.1.5

RHB 4.2.19.1.5 was renumbered to RHB 4.2.17.1.5 and was revised to clarify safelight requirements.

### R.61-64 RHB 4.2.19.1.5.1 and RHB 4.2.19.1.5.2

These subsection subitems have been deleted requiring facilities to have a safelight.

### R.61-64 RHB 4.2.17.2.3

A new subsection subitem was added requiring documentation of chemical changes as recommended by the manufacturer.

### R.61-64 RHB 4.2.19.2.3

RHB 4.2.19.2.3 was renumbered to RHB 4.2.17.2.4 and was revised to clarify safelight requirements.

### R.61-64 RHB 4.2.19.2.3.1 and RHB 4.2.19.2.3.2

These subsection subitems were deleted in entirety that required facilities to have a safelight.

### R.61-64 RHB 4.2.19.2.5

RHB 4.2.19.2.5 was renumbered to RHB 4.2.17.2.6 and was revised to delete the word "immediately."

### R.61-64 RHB 4.2.19.2.7

RHB 4.2.19.2.7 was renumbered to RBH 4.2.17.2.8 and a heading was added. The regulation was also broken down into subsection subitems to clarify densitometric and sensitometric performance testing. The regulation was also revised to delete the requirement of facilities that process less than 250 films per day, but more than 250 films per week to perform testing on a weekly basis.

### R.61-64 RHB 4.2.17.2.8.1, RHB 4.2.17.2.8.2, RHB 4.2.17.2.8.3, RHB 4.2.17.2.8.4, RHB 4.2.17.2.8.5 and RHB 4.2.17.2.8.6

These new subsection subitems were moved from RHB 4.2.19.2.7 to better clarify densitometric and sensitometric performance testing.

### R.61-64 RHB 4.2.19.3.2

This subsection subitem was deleted in entirety that required darkrooms to have a positive method to prevent accidental injury.

### R.61-64 RHB 4.3.1

This subsection item was revised to clarify warning labels.

### R.61-64 RHB 4.3.1.1

A new subsection subitem was added to clarify warning labels.

### R.61-64 RHB 4.3.2

This subsection item was revised to indicate battery-powered generators shall be adequately charged.

### R.61-64 RHB 4.3.4

This subsection item was revised to clarify the requirements of capacitor energy storage equipment in standby status.

### R.61-64 RHB 4.3.5

This subsection item was revised to delete specified dental units manufactured dates.

### Table I

This table was revised to correct structural errors.

R.61-64 RHB 4.3.7

This subsection item was revised to move the requirement of indicators on the control and at or near the tube.

R.61-64 RHB 4.3.7.1

A new subsection subitem was added to clarify indicators on the control and at or near the tube.

R.61-64 RHB 4.3.9.1 and RHB 4.3.9.2

These subsection subitems were revised to clarify technique indicators.

R.61-64 RHB 4.3.12

A new subsection item was added to address imaging systems other than screen/film.

R.61-64 RHB 4.3.12.1

A new subsection subitem was added to require users of digital imaging systems to follow protocol established by the manufacturer of the digital imaging acquisition system.

R.61-64 RHB 4.3.12.2

A new subsection subitem was added to require that the manufacturer's current operating manual be available for Department review.

R.61-64 RHB 4.3.13

A new subsection item was added to allow the Department the ability to impose by rule, regulation, or order any requirements deemed appropriate or necessary to ensure appropriate and proper operation of any diagnostic x-ray system.

R.61-64 RHB 4.4

This section was revised in its entirety. Text was rearranged to better clarify the shielding process. Text was revised to change the words "approval" to "acceptance." References were revised. Text was added stating that x-ray equipment cannot be installed before a shielding plan has been accepted. Text was also added to address the applicable fees as stated in RHB 2.3.2. References were updated to be consistent with the National Council of Radiation Protection and Measurements, Report Number 145 and Report Number 147. Text was deleted exempting installations where ordinary building materials are sufficient from survey requirements. Text was added requiring any deviation from the accepted shielding plan shall be documented and evaluated for adequacy by a vendor. Text was deleted which allowed the replacement of an x-ray machine or generator without the submission of a new shielding plan. Text was added to allow Class VII and Class IX vendors to submit shielding plans. Text was added to allow Class V and Class VII vendors to perform area surveys. Text was also added exempting Bone Density and Mammography units from "as-built" drawing requirements.

R.61-64 RHB 4.5.2.2

This subsection subitem was revised to add the text "position indication device."

R.61-64 RHB 4.5.3.3

This subsection subitem was revised to correct formula.

R.61-64 RHB 4.5.4.2.3

This subsection subitem was deleted in its entirety. This removes the requirement of the operator to view the patient during all x-ray exams.

R.61-64 RHB 4.5.4.2.5

RHB 4.5.4.2.5 has been renumbered to RHB 4.5.4.2.4 and revised to clarify visual and/or audible indication of x-rays.

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### R.61-64 RHB 4.5.5

This subsection item was revised to correct formula.

### R.61-64 RHB 4.5.11.1

This subsection subitem was revised to refer to RHB 4.4.4.2 concerning shielding requirements.

### R.61-64 RHB 4.5.11.3

This subsection subitem was revised to require pass throughs to be interlocked in a functional, permanent manner.

### R.61-64 RHB 4.6.6.1

This subsection subitem was revised to include reference to RBH 4.4 concerning shielding of cephalometric installations.

### R.61-64 RHB 4.6.3 and RHB 4.6.3.1

These new subsection item and subsection subitem were added to address dental ct units. This requirement refers to RHB 4.11 ct x-ray systems.

### R.61-64 RHB 4.6.3

RHB 4.6.3 was renumbered to RHB 4.6.4 and revised to delete “that is not a cephalometric or panoramic unit.”

### R.61-64 RHB 4.7.4.2.3, RHB 4.7.4.2.3.1, RHB 4.7.4.2.3.2 and RHB 4.7.4.2.3.3

These subsection subitems were deleted in their entirety. The requirement for mobile and portable x-ray systems was revised for clarification and moved to RBH 4.8, Mobile Radiographic Equipment.

### R.61-64 RHB 4.7.4.2.6.3

RHB 4.7.4.2.6.3 has been renumbered to RHB 4.7.4.2.5.3 and a reference was revised.

### R.61-64 RHB 4.7.4.2.6.5

RHB 4.7.4.2.6.5 has been renumbered to RHB 4.7.4.2.5.5 and a reference was revised.

### R.61-64 RHB 4.7.6

This subsection item was deleted in its entirety. This subsection item outlines regulations from radiation capacitor energy storage units, which are no longer used in diagnostic settings.

### R.61-64 RHB 4.7.7

RHB 4.7.7 was renumbered to RHB 4.7.6 and revised to correct grammatical error.

### R.61-64 RHB 4.7.9.2

RHB 4.7.9.2 was renumbered to RHB 4.7.8.2 and a reference was revised.

### R.61-64 RHB 4.7.13.4

RHB 4.7.13.4 was renumbered to RHB 4.7.12.4 and revised to delete reference to another part of this section.

### R.61-64 RHB 4.8.1

This subsection item was revised to correct a reference to another section of this part.

### R.61-64 RHB 4.8.8

This subsection item was revised to delete “continually” from mobile used in a single location requirement.

R.61-64 RHB 4.8.9

This subsection item was revised to change “12” to “6” to be compatible with Federal standards.

R. 61-64 RHB 4.9.1.1, RHB 4.9.1.2, RHB 4.9.1.3 and RHB 4.9.1.4

These subsection subitems were revised to spell out numbers for clarity and to a correct reference to another section of this part.

R.61-64 RHB 4.9.4.3.6

This subsection was revised to correct a reference to another section of this part.

R.61-64 RHB 4.9.8.2.2

This subsection was revised to correct a reference to another section of this part.

R.61-64 RHB 4.9.9.2

This subsection subitem was revised to correct formula.

R.61-64 RHB 4.9.9.3

This subsection subitem was revised to correct formula.

R.61-64 RHB 4.9.10

This subsection was revised to clarify the use of a mobile system as a stationary system.

R.61-64 RHB 4.9.12

This subsection was revised to correct reference to another part of this section.

R.61-64 RHB 4.9.13.7

This subsection subitem was revised to change “0.25” to “0.5” to be consistent with other parts of this regulation.

R.61-64 RHB 4.9.13.8.2

This subsection subitem was revised to correct formula.

R.61-64 RHB 4.9.13.8.3

This subsection subitem was revised to correct formula.

R.61-64 RHB 4.10.2.1

Text revised to delete shielding plan requirements from this section since it is addressed in a previous section.

R.61-64 RHB 4.10.2.2

This subsection subitem was revised to change “Mobile and portable” to “peripheral” for clarification of exempt units.

R.61-64 RHB 4.10.2.3

This subsection subitem was deleted in its entirety since shielding plan requirements are addressed in a previous section.

R.61-64 RHB 4.10.4.2

This subsection subitem was revised to correct reference to other parts of this regulation.

R.61-64 RHB 4.10.4.3

This subsection subitem was revised to correct reference to a previous section of this part.

R.61-64 RHB 4.10.4.4

This subsection subitem was revised to correct reference to a previous section of this part.

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### R.61-64 RHB 4.10.4.5

This subsection subitem was deleted in its entirety because the Department has determined this was an unnecessary regulation.

### R.61-64 RHB 4.11.1.1.3

This subsection subitem was revised to delete specific ambient conditions.

### R.61-64 RHB 4.11.2.3

This subsection subitem was revised to delete text specific to the last revision date.

### R.61-64 RHB 4.11.2.3.1

A new subsection subitem was added to require all facilities to mark open areas within 12 months of the effective date of this revision.

### R.61-64 RHB 4.11.2.4

This subsection subitem was revised to change “the effective date of these regulations” to “May 25, 2001”, which is the actual effective date of the last revision.

### R.61-64 RHB 4.11.3.1.4

This subsection subitem regarding equipment performance tests was revised to be consistent with other sections of this part.

### R.61-64 RHB 4.11.3.2.3

This subsection subitem was revised to allow facilities utilizing CT units to retain images in one of two forms due to the increased use and accuracy of digital imaging.

### R.61-64 RHB 4.11.4

This subsection subitem was deleted in its entirety since these items are addressed in other sections of this part.

### R.61-64 RHB 4.12.1

This section was revised to correct references to other sections of this part.

### R.61-64 RHB 4.12.2

This subsection item was revised to correct references to other sections of this part.

### R.61-64 RHB 4.12.3

This subsection item was revised to correct a reference to another section of this part.

### R.61-64 RHB 4.12.3.1

This subsection subitem was revised to clarify the use of human holders in a veterinary facility.

### R.61-64 RHB 4.12.3.2

This subsection subitem was revised to clarify the requirement regarding the use of ring badges in a veterinary facility.

### R.61-64 RHB 4.12.11.2.3

This subsection subitem was revised to correct formula.

### R.61-64 RHB 4.12.12

This subsection subitem was revised to correct formula.

R.61-64 RHB 4.12.16.2

This subsection subitem was deleted in its entirety. Testing contrast ratios of collimator lights would be very tedious and has not been enforced since the current collimator light illuminance requirements are adequate.

R.61-64 RHB 4.12.16.3

RHB 4.12.16.3 was renumbered to RHB 4.12.16.2 and was revised to delete “and 4.12.16.2” since this requirement for a specific collimator light ratio has been deleted.

R.61-64 RHB 4.12.18.6.2.2

This subsection subitem was revised to include all protective apparel.

R.61-64 RHB 4.12.20

This subsection subitem was revised to change “All provisions of RHB 4.11.1 through 4.11.15 apply” to “Where applicable, all provisions of RHB 4.11 apply” to clarify what provisions apply to veterinary CT systems.

R.61-64 RHB 4.12.20.1

This subsection subitem was deleted in its entirety since it was repetition of a previous section of this part.

R.61-64 RHB 4.12.20.2

This subsection subitem was deleted in its entirety since it was repetition of a previous section of this part.

R.61-64 RHB 4.12.21

A new subsection subitem was added to regulate veterinary dental x-ray systems.

R.61-64 RHB 4.12.21.2

RHB 4.12.21.2 was renumbered to RHB 4.12.22.2 and was revised to correct a reference to another section of this part.

R.61-64 RHB 4.13

This is a new section added to the regulations addressing the requirements for Medical Specimen X-Ray Units.

R.61-64 RHB 4.13.1

This subsection item is an administrative requirement referring to RHB 4.2.2.7, outlining radiation safety training.

R.61-64 RHB 4.13.2

This subsection item outlines the requirements of the x-ray unit regarding radiation surveys and frequency of the surveys.

R.61-64 RHB 4.13.3

This subsection item stipulates the testing of all safety devices on the x-ray unit.

R.61-64 RHB 4.13.4

This subsection item outlines the maximum x-ray emitted on the external surface of the x-ray unit of 0.5 milliRoentgens per hour at any point five centimeters from the external surface.

R.61-64 RHB 4.13.5

This subsection item requires the x-ray specimen unit to be secured when not in operation.

R.61-64, Appendices

The Text “Part IV” was added to the title of each appendix.

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### Part IV - Appendix B

Section was revised to change “approval” to “acceptance” to be more consistent with other sections of this part.

1.  
Subsection item was revised to change “as” to “at” to establish minimum requirements.
- 1.(c)  
Subsection subitem was revised to change “The dimensions of the room(s) concerned.” to “A scale drawing of the room(s) concerned” to be more precise.
- 1.(e)  
Subsection subitem was revised to change “make and model” to “type” to be consistent with other parts of this regulation.
- 1.(g)  
Subsection subitem was revised to include requirements if the system is filmless.
2.  
Subsection item was revised to be grammatically correct.
3.  
Subsection item was revised to include “(workload)” as a point of clarification.
5.  
A new subsection subitem was added to include specific requirements for individual barriers.

### Part IV - Appendix C

- 3.(a)  
Subsection subitem was revised to exclude mammography equipment from this requirement.
4.  
Subsection subitem was revised for grammatical accuracy. Text was changed from “should” to “shall” to require operator view of any entry to the room. Text was also revised to change “Appendix B” to “this Part” to include all sections of this Part.
5.  
Text was revised to change “approval” to “acceptance” to be more consistent with other sections of this part.

### Part IV - Appendix D

#### Medical

Section was revised to correct a reference to an earlier section of this part.

This section was revised to add the requirement that all facilities utilizing digital equipment must use techniques as not to exceed the ESE limits set for 200 speed systems.

#### Dental

Section was revised to correct a reference to an earlier section of this part.



Part IV - Appendix F

Minimum Criteria for Performance Tests

Section was revised for clarification regarding the required content of the equipment performance test.

Section was revised to correct references to earlier sections of this part.

Section was revised to include additional requirements for the content and format of the equipment performance tests.

Medical Radiographic (Including veterinary facilities)

Subsection was revised to delete tests specific to capacitor discharge units since these units are obsolete.

Subsection was revised to delete "Screen-film contact" since no standards have been established for this test.

Subsection was revised to change "approved" to "accepted" to be consistent with other sections of this part.

Subsections were revised to correct references to other sections of this part.

Fluoroscopic

Subsection was revised to delete "kVp accuracy" since there is no standard in these regulations for this requirement.

Subsections were revised to correct references to other sections of this part.

Radiation Therapy Simulation Systems

Subsection was revised to delete "Screen-film contact" since no standards have been established for this test.

Subsections were revised to correct references to other sections of this part.

Subsection was revised to change "approved" to "accepted" to be consistent with other sections of this part.

Computed Tomography (CT) (Including CT treatment planning systems used in radiation therapy)

Subsections were revised to correct references to other sections of this part.

Subsection was revised to change "approved" to "accepted" to be consistent with other sections of this part.

Dental

Subsections were revised to correct references to other sections of this part.

Subsection was revised to change "approved" to "accepted" to be consistent with other sections of this part.

Part V - Quality Standards and Certification Requirements for Facilities Performing Mammography

R.61-64 RHB 5.2

Subsection item was revised since all facilities must now have a valid certificate issued by the Department.

R.61-64 RHB 5.3.5.1

This subsection subitem was revised to correct spelling error.

R.61-64 RHB 5.5.2

Subsection item was revised to indicate correct appeals process for a facility denied accreditation or reaccreditation.

R.61-64 RHB 5.5.4

Subsection item was revised to indicate correct Deputy area of the Department.

R.61-64 RHB 5.6.2

Subsection item was revised to remove reference to FDA certificates since SC DHEC is now a certifying state and issues all certificates.

## **154 FINAL REGULATIONS**

### **R.61-64 RHB 5.6.5**

A new subsection item was added to require a follow-up inspection fee. This provision was added to recover costs of a follow-up inspection.

### **R.61-64 RHB 5.6.5.1**

A new subsection item was added to require a follow-up inspection fee. This provision was added to help recover costs of a follow-up inspection.

### **R.61-64 RHB 5.6.5.2**

A new subsection subitem was added to indicate issuance of the follow-up inspection fee invoice.

### **R.61-64 RHB 5.6.5.3**

A new subsection subitem was added to include required time frame for payment of follow-up inspection fees.

### **R.61-64 RHB 5.7.1.3.1.1**

A new subsection subitem was added to require facility records to include documentation of physician initial qualifications.

### **R.61-64 RHB 5.8.14**

The subsection subitem was deleted in its entirety to be compatible with Federal Mammography requirements.

### **R.61-64 RHB 5.9.4.1**

The subsection subitem was revised to correct reference.

### **R.61-64 RHB 5.11.1.1**

The subsection subitem was revised to be compatible with Federal Mammography requirements.

### **R.61-64 RHB 5.11.4.3**

The subsection subitem was revised to be compatible with Federal Mammography requirements.

### **R.61-64 RHB 5.11.4.3.1**

The subsection subitem was deleted in its entirety to be compatible with Federal Mammography requirements.

### **R.61-64 RHB 5.11.4.3.2**

The subsection subitem was deleted in its entirety to be compatible with Federal Mammography requirements.

### **R.61-64 RHB 5.11.5.4**

The subsection subitem was revised to correct formula.

### **R.61-64 RHB 5.11.5.5**

The subsection subitem was revised to correct formula.

### **R.61-64 RHB 5.18**

This section item was revised to be grammatically correct.

### **R.61-64 RHB 5.24.3.1**

The subsection subitem was revised to indicate correct Deputy area of the Department.

### **R.61-64 RHB 5.27**

The subsection item was revised to correct reference.

R.61-64, Appendices

The Text “Part V” was added to the title of each appendix.

R.61-64, Part V - Appendix B

(d)

The subsection item was revised to change “mases” to “masses”.

(g)

The subsection item was revised to change “filin” to “film”.

(j)

The subsection item revised to change “fbrils” to “fibrils”.

Part VI - Use of Therapeutic Equipment

R.61-64 RHB 6.2.1

This subsection item was revised to move the requirement to RHB 6.23.2. The subsection item was revised to move requirement from RHB 6.2.2 to RHB 6.2.1 and to provide congruency with Part IV of this regulation and to clarify the vendor classes that may submit shielding plans.

R.61-64 RHB 6.2.2

This subsection item was revised to move requirements from RHB 6.2.2 to RHB 6.2.1, RHB 6.2.3.1, and RHB 6.2.4. These requirements were added to this subsection item to be consistent with Part IV of this regulation and to specify shielding requirements for therapeutic equipment.

R.61-64 RHB 6.2.3

This subsection item was revised to move requirements from RHB 6.2.3 to RHB 6.2.6 for organizational purposes. This subsection item was revised to add a heading.

R.61-64 RHB 6.2.3.1

This subsection item was revised to move requirements from RHB 6.2.3.1 to RHB 6.2.6.1 for organizational purposes. This subsection item was revised to add text to be consistent with Part II of this regulation.

R.61-64 RHB 6.2.3.2

This subsection subitem was revised to move RHB 6.2.3.2 to RHB 6.2.6.2 for organization purposes. This subsection subitem was revised to move RHB 6.2.1 to RHB 6.2.3.2 and modified to reflect current national standards.

R.61-64 RHB 6.2.3.2.1

RHB 6.2.3.1 was moved in its entirety to RHB 6.2.6.1 for organizational purposes.

R.61-64 RHB 6.2.3.2.2

RHB 6.2.3.2.2 was moved in its entirety to RHB 6.2.6.2.2 for organizational purposes.

R.61-64 RHB 6.2.3.3

A new subsection subitem was added to be consistent with Part IV of this regulation.

R.61-64 RHB 6.2.3.4

A new subsection subitem was added to be consistent with Part IV of this regulation.

R.61-64 RHB 6.2.3.5

A new subsection subitem was added to be consistent with Part IV of this regulation.

## 156 FINAL REGULATIONS

### R.61-64 RHB 6.2.4

The subsection item was revised to address shielding plan requirements in the event that analysis of conditions indicate the possibility of an individual dose in excess of limits set in Part III of this regulation.

### R.61-64 RHB 6.2.5

The subsection item was revised to address area surveys for therapeutic equipment.

#### R.61-64 RHB 6.2.5.1

A new subsection subitem was added to include the items that must be addressed on an area survey for therapeutic equipment.

#### R.61-64 RHB 6.2.5.2

A new subsection subitem was added to the timeframe for the submission of the area survey.

#### R.61-64 6.2.5.3

A new subsection subitem was added to require evaluation by a Class IX vendor of any deviation from an accepted shielding plan.

### R.61-64 RHB 6.2.6

A new subsection item was added and RHB 6.2.3 was moved to RHB 6.2.6.

#### R.61-64 RHB 6.2.6.1

A new subsection subitem was added and RHB 6.2.3.1 was moved to RHB 6.2.6.1.

#### R.61-64 RHB 6.2.6.2

A new subsection subitem was added and RHB 6.2.3.2 was moved to RHB 6.2.6.2.

##### R.61-64 RHB 6.2.6.2.1

A new subsection subitem was added and RHB 6.2.3.2.1 was moved to RHB 6.2.6.2.1.

##### R.61-64 RHB 6.2.6.2.2

A new subsection subitem was added and RHB 6.2.3.2.2 was moved to RHB 6.2.6.2.2.

#### R.61-64 RHB 6.3.1.2

This subsection subitem was revised to correct inaccurate wording.

##### R.61-64 RHB 6.3.2.1.1.1

This subsection subitem was deleted in its entirety.

##### R.61-64 RHB 6.3.2.1.1.2

This subsection subitem was deleted in its entirety.

##### R.61-64 RHB 6.3.2.1.1.3

This subsection subitem was deleted in its entirety.

##### R.61-64 RHB 6.3.2.1.1.4

This subsection subitem was deleted in its entirety due to non-applicability in modern situations.

##### R.61-64 RHB 6.3.2.1.1.5

This subsection subitem was deleted in its entirety.

R.61-64 RHB 6.3.2.1.1.6

This subsection subitem was deleted in its entirety.

R.61-64 RHB 6.3.2.1.1.7

This subsection subitem was deleted in its entirety.

R.61-64 RHB 6.3.2.1.1.11

This subsection subitem was renumbered to RHB 6.3.2.1.1.4 and revised to correct reference to another part of this regulation.

R.61-64 RHB 6.3.2.1.1.12

This subsection subitem was renumbered to RHB 6.3.2.1.1.5 and was revised to clarify and remove requirements that no longer apply to modern equipment.

R.61-64 RHB 6.3.2.1.2

This subsection was revised to include RHB 6.3.2.1.2.1 and RHB 6.3.2.1.2.2.

R.61-64 RHB 6.3.2.1.2.1

This subsection subitem was deleted in its entirety.

R.61-64 RHB 6.3.2.1.2.2

This subsection subitem was deleted in its entirety.

R.61-64 RHB 6.3.3.1

This subsection subitem was revised to define a licensed practitioner.

R.61-64 RHB 6.3.3.8

This subsection subitem was revised to reflect the present SCRQSA practices.

R.61-64 RHB 6.3.3.9

This subsection subitem was revised to be consistent with other parts of this regulation.

R.61-64 RHB 6.3.4.3

A new subsection subitem was added and RHB 6.3.2.1.1.7 was moved to RHB 6.3.4.3.

R.61-64 RHB 6.3.4.4

A new subsection subitem was added and RHB 6.3.2.1.1.5 was moved to RHB 6.3.4.4.

R.61-64 RHB 6.3.6

A new subsection item was added and RHB 6.3.2.1.1.1 was moved to RHB 6.3.6.

R.61-64 RHB 6.3.7

A new subsection item was added and RHB 6.3.2.1.1.2 was moved to RHB 6.3.7.

R.61-64 RHB 6.4.1.1

This subsection subitem was revised to correct an error in numbering.

R.61-64 RHB 6.4.1.3.3

The subsection subitem was revised to change “the effective date of these regulations” to “May 25, 2001,” which is the effective date of the last revision and “RHB” was added for consistency with other parts of this regulation.

## **158 FINAL REGULATIONS**

### **R.61-64 RHB 6.4.1.10**

This subsection subitem was revised to delete “within one year of the effective date of these regulations” which is no longer applicable.

### **R.61-64 RHB 6.4.1.10.6**

The subsection subitem was revised to change “the effective date of these regulations” to “May 25, 2001,” which is the effective date of the last revision and “RHB” was added for consistency with other parts of this regulation.

### **R.61-64 RHB 6.4.2.2.3**

This subsection subitem was revised to add “RHB” for consistency with other parts of this regulation.

### **R.61-64 RHB 6.4.3.4**

This subsection subitem was revised to add “RHB” for consistency with other parts of this regulation.

### **R.61-64 RHB 6.4.4.3.3**

This subsection subitem was revised to add “RHB” for consistency with other parts of this regulation.

### **R.61-64 RHB 6.4.4.3.4**

This subsection subitem was revised to add “RHB” for consistency with other parts of this regulation.

### **R.61-64 RHB 6.4.4.3.5**

This subsection subitem was revised to add “RHB” for consistency with other parts of this regulation.

### **R.61-64 RHB 6.4.4.3.7**

This subsection subitem was revised to add “RHB” for consistency with other parts of this regulation.

### **R.61-64 RHB 6.4.4.4**

This subsection subitem was revised to add “RHB” for consistency with other parts of this regulation.

### **R.61-64 RHB 6.5.1.2**

This subsection subitem was revised to add “RHB” for consistency with other parts of this regulation.

### **R.61-64 RHB 6.5.3.2**

This subsection subitem was revised to add “RHB” for consistency with other parts of this regulation.

### **R.61-64 RHB 6.5.3.3**

The subsection subitem was revised to change “the effective date of these regulations” to “May 25, 2001,” which is the effective date of the last revision.

### **R.61-64 RHB 6.5.4.2**

This subsection subitem was revised to add “RHB” for consistency with other parts of this regulation.

### **R.61-64 RHB 6.5.4.4**

This subsection subitem was revised to add “RHB” for consistency with other parts of this regulation.

### **R.61-64 RHB 6.5.4.4.2**

This subsection subitem was revised to add “RHB” for consistency with other parts of this regulation.

### **R.61-64 RHB 6.5.5.3.6**

This subsection subitem was revised to add “RHB” for consistency with other parts of this regulation.

**R.61-64 RHB 6.5.11.3**

The subsection subitem was revised to change “the effective date of these regulations” to “May 25, 2001,” which is the effective date of the last revision.

**R.61-64 RHB 6.5.14.7**

This subsection subitem was revised to add “RHB” for consistency with other parts of this regulation.

**R.61-64 RHB 6.5.15**

This subsection subitem was revised to add “RHB” for consistency with other parts of this regulation.

**R.61-64 RHB 6.6.1.2**

This subsection subitem was renumbered to RHB 6.6.1.6 to correct a numbering error and was revised to add “RHB” for consistency with other parts of this regulation.

**R.61-64 RHB 6.6.3.1**

This subsection subitem was revised to add “RHB” for consistency with other parts of this regulation.

**R.61-64 RHB 6.6.3.3**

This subsection subitem was revised to add “RHB” for consistency with other parts of this regulation.

**R.61-64 RHB 6.6.3.6**

This subsection subitem was revised to add “RHB” for consistency with other parts of this regulation.

**R.61-64 RHB 6.6.3.7**

This subsection subitem was revised to add “RHB” for consistency with other parts of this regulation.

**R.61-64 RHB 6.6.4.7**

This subsection subitem was revised to add “RHB” for consistency with other parts of this regulation.

**R.61-64 RHB 6.6.4.9**

This subsection subitem was revised to add “RHB” for consistency with other parts of this regulation.

**R.61-64 RHB 6.6.5**

This subsection item was revised to add “RHB” for consistency with other parts of this regulation.

**Part VII - Radiation Safety Requirements for Analytical X-Ray Equipment**

This Section has been renumbered in alphanumeric order.

**R.61-64 RHB 7.1**

Typographical correction, the word “part” was capitalized.

**R.61-64 RHB 7.2.2**

This section was revised to change “Section” to “RHB” for consistency with other parts of the regulations.

**R.61-64 RHB 7.3**

This section was revised to include deletion of the existing title (General Requirements for All Analytical X-ray Equipment) and replacing it with a new title (Hand Analytical X-ray Equipment) and requirements addressing hand held analytical x-ray equipment.

## 160 FINAL REGULATIONS

### R.61-64 RHB 7.3.1

This subsection item was revised and text was added that specified operator training must be obtained and documented for the operation of Hand-Held Analytical X-Ray equipment.

### R.61-64 RHB 7.3.2

A subsection item was added that requires Hand-Held Analytical X-Ray equipment have an interlock that prevents operation unless the x-ray exit port is in contact with or in close proximity to the item being irradiated.

### R.61-64 RHB 7.3.3

A new subsection item was added that requires the equipment be operated in accordance with the manufacturer's specifications.

### R.61-64 RHB 7.3

Renumbered to Section 7.4 and titled: General Requirements for All Analytical X-ray Equipment.

### R.61-64 RHB 7.3.5.1.2

Renumbered and changed to subsection subitem 7.4.5.1.2.

For improved clarification, unnecessary text regarding signage was deleted.

### R.61-64 RHB 7.3.5.1.4

Renumbered and changed to subsection subitem 7.4.5.1.4.

Text changes. The word "Recorded" changed to "Documented". The word "record:" changed to "documentation". The word "should" changed to "shall". Content reworded for improved clarification. Rewording entails documentation of any alteration to the x-ray equipment.

### R.61-64 RHB 7.3.5.2

Renumbered and changed to subsection subitem 7.4.5.2.

Text, rewording, and consistency changes made. Includes all safety devices for the x-ray unit and the timeline for testing and documenting the safety devices.

### R.61-64 RHB 7.3.5.3

Renumbered and changed to subsection subitem 7.4.5.3.

The word "protection" was changed to "area".

### R.61-64 RHB 7.3.6

Renumbered and changed to subsection item 7.4.6.

For hourly radiation leakage measurements, the wording was changed from "in any given", to "per" hour.

### R.61-64 RHB 7.3.7

Renumbered and changed to subsection item 7.4.7.

For protective cabinet limits, the wording was changed from "in any given", to "per" hour.

### R.61-64 RHB 7.3.8

Renumbered and changed to subsection item 7.4.8.

Text added regarding specific output limits for analytical x-ray equipment. If exceeded these limits must be reduced prior to using the x-ray equipment. Deleted text and moved to Section 7.4.9 for clarity.

### R.61-64 RHB 7.4.9

A new subsection item outlining the stipulations involved with repair or modification of the x-ray tube system on analytical x-ray equipment. The x-ray tube must be off and remain off until safe conditions have been restored.



**R.61-64 RHB 7.4.1.2**

Renumbered and changed to subsection subitem 7.5.1.2.

For clarity the word “and” was deleted. “The reason each of these devices cannot be used,”.

**R.61-64 RHB 7.4.1.3**

Renumbered and changed to subsection subitem 7.5.1.3.

To lead into a new requirement (7.5.1.4) the word “and” was added.

**R.61-64 RHB 7.5.1.4**

A new subsection subitem was added to require the facility to have a procedure for notifying the proper persons in the event of an accident.

**R.61-64 RHB 7.5.7**

A new subsection item was added that requires the registrant to develop and create written operating procedures for their analytical x-ray equipment. The Sections will stipulate what must be addressed in the written operating procedures. The procedures must cover personnel monitoring, access to radiation areas, securing the x-ray unit, pregnant employees, and training.

**R.61-64 RHB 7.5.7.1**

A new subsection subitem was added for a procedure for the use of personnel monitoring.

**R.61-64 RHB 7.5.7.2**

A new subsection subitem was added for a procedure for controlling access to radiation areas.

**R.61-64RHB 7.5.7.3**

A new subsection subitem was added for a procedure for locking and securing the x-ray unit.

**R.61-64 RHB 7.5.7.4**

A new subsection subitem was added for a procedure for pregnant employees.

**R.61-64 RHB 7.5.7.5**

A new subsection subitem was added for a procedure for training new employees.

**R.61-64 RHB 7.5.8 and RHB 7.5.8.1**

This new subsection and new subsection subitem(s), outlines the operator training and competency requirements. These areas stipulate(s) training requirement in identification of radiation hazards, significance of radiation safety devices, proper operation of the x-ray equipment, proper operation of the survey instruments, characteristics of ionizing radiation, methods of controlling dose, units of dose, personnel monitoring use, symptoms of exposure, reporting of actual or suspected overexposure, understanding of specific parts in the regulations, and demonstration of competence.

**R.61-64 RHB 7.5.8.1.1**

A new subsection subitem for training on the identification of radiation hazards associated with the use of the equipment.

**R.61-64 RHB 7.5.8.1.2**

A new subsection subitem was added for training on the understanding of the various radiation warning and safety devices.

**R.61-64 RHB 7.5.8.1.3**

A new subsection subitem was added for training on proper operation of the x-ray equipment.

## 162 FINAL REGULATIONS

### R.61-64 RHB 7.5.8.1.4

A new subsection subitem was added for training on proper operation of the survey meter.

### R.61-64 RHB 7.5.8.1.5

A new subsection subitem was added for training on characteristics of ionizing radiation.

### R.61-64 RHB 7.5.8.1.6

A new subsection subitem was added for training on methods of controlling radiation dose.

### R.61-64 RHB 7.5.8.1.7

A new subsection subitem was added for training on units of radiation dose.

### R.61-64 RHB 7.5.8.1.8

A new subsection subitem was added for training on use of personnel monitoring equipment.

### R.61-64 RHB 7.5.8.1.9

A new subsection subitem was added for training on symptoms of an acute localized radiation exposure.

### R.61-64 RHB 7.5.8.1.10

A new subsection subitem was added for training on proper procedure for reporting an actual or suspected overexposure.

### R.61-64 RHB 7.5.8.1.11

A new subsection subitem was added for training on the understanding of the regulations contained in Part XII and the applicable sections of Part III.

### R.61-64 RHB 7.5.8.2

A new subsection subitem was added to require that documentation of instruction and demonstration of competence must be maintained and available for review.

### R.61-64 RHB 7.5

Renumbered and changed to Section 7.6.

For new equipment on the market, stationary, and mobile analytical x-ray units were included.

### R.61-64 RHB 7.5.2

Renumbered and changed to subsection item 7.6.2.

Typographical error with the word “proper” changed to “properly”.

### R.61-64 RHB 7.6.1

Renumbered and changed to subsection item 7.7.1.

Referral number for radiation dose limits changed due to renumbering.

### R.61-64 RHB 7.6.2

Renumbered and changed to subsection item 7.7.2.

Referral number for radiations surveys changed due to renumbering. This subsection subitem was revised to add “RHB” for consistency with other parts of this regulation.

### R.61-64 RHB 7.6.2.7

Renumbered and changed to subsection subitem 7.7.2.7.

For clarity the word(s) “personnel” and “Radiation Protection Guides” were removed. This change states a monitoring device, to include all types, and comparing the readings from the previous monitoring period in order to evaluate the radiation dose limits.

R.61-64 RHB 7.6.3

Renumbered and changed to subsection item 7.7.3.

Text was added allowing a facility (if they can demonstrate compliance) to use an area monitor in lieu of an annual radiation survey. Stipulations on the placement change out, and documented results from the area monitor were included. This subsection subitem was revised to add “RHB” for consistency with other parts of this regulation.

R.61-64 RHB 7.6.4

Renumbered and changed to subsection item 7.7.4.

Typographical error of the word “insure” was changed to “ensure”. Text was added to ensure that tests, inspection of safety devices, were “in accordance with RHB 1.10.2.4”.

R.61-64 RHB 7.6.5

Subsection item 7.6.5 was deleted due to referral number changes regarding excess radiation limits.

R.61-64 RHB 7.7

Renumbered and changed to Section 7.8.

Text added regarding radiation survey instruments “All provisions of RHB 1.4.4 apply”.

R.61-64 RHB 7.7.1

Renumbered and moved to subsection item 1.4.4. New subsection subitem number 1.4.4.1.

R.61-64 RHB 7.7.2

For improved organization and flow of the regulation calibration requirement was moved to subsection subitem 1.4.4.2.

R.61-64 RHB 7.7.2.1

Renumbered and moved to subsection subitem 1.4.4.2.1.

R.61-64 RHB 7.7.2.2

Renumbered and moved to subsection subitem 1.4.4.2.2.

R.61-64 RHB 7.7.2.3

Renumbered and moved to subsection subitem 1.4.4.2.3.

R.61-64 RHB 7.7.2.4

Renumbered and moved and language change to subsection subitem 1.4.4.2.4.

R.61-64 RHB 7.7.3

Renumbered and moved to subsection subitem 1.4.4.2.5.

R.61-64 RHB 7.8.1

Renumbered and moved to subsection item 7.9.1.

For clarity, the word “Instruction” was changed to “Operator training”. This requires the operator to receive instruction and demonstrate competence prior to operating, repairing or maintaining analytical x-ray equipment.

R.61-64 RHB 7.8.1.3

Renumbered and changed to subsection subitem 7.9.1.3.

Restating the requirement. The word “operating” was changed to “operation”. The word “procedure” and “for.” were deleted. Text was added to ensure that the proper operation of the equipment was done based on the manufacturer’s guidelines and the registrant’s written operating procedures.

## 164 FINAL REGULATIONS

### R.61-64 RHB 7.8.1.4

This Section regarding radiation survey instruments was moved to subsection item 1.4.4.

### R.61-64 RHB 7.8.1.5

Renumbered and changed to subsection subitem 7.9.1.4.

The word “x radiation” was changed to “ionizing radiation”.

### R.61-64 RHB 7.8.1.6

The units of radiation dose were moved to subsection item 7.5.8 under Operator training.

### R.61-64 RHB 7.8.1.7

Renumbered and changed to subsection subitem 7.9.1.5.

Text was added for clarity and establishing guidelines regarding personnel “and/or area” monitoring “if applicable”.

### R.61-64 RHB 7.8.1.8

For improved organization, “symptoms of an acute localized exposure and” was moved to subsection item 7.5.8 under Operator training. New subsection subitem number is 7.5.8.1.9.

### R.61-64 RHB 7.8.1.9

For improved organization, “Proper procedures for reporting an actual or suspected overexposure” was moved to subsection item 7.5.8 under Operator training. New subsection subitem number is 7.5.8.1.10.

### R.61-64 RHB 7.8.1.10

For improved organization, the regulations contained in this Part, and the applicable sections of Part III were moved. The new subsection subitem number is 7.5.8.1.10.

### R.61-64 RHB 7.8.3

Renumbered and changed to subsection item 7.9.3.

Text was added and deleted for clarity. The word “Operating” was added to state Operating Procedures. This Section instructs the registrant to create and make available to x-ray operators, written operating procedures.

### R.61-64 RHB 7.9.3.1

New text added outlining the requirements of what is to be included with the written operating procedures for personnel and/or area monitoring.

### R.61-64 RHB 7.9.3.2

New text added outlining the requirements of what is to be included with the written operating procedures for pregnant employees.

### R.61-64 RHB 7.9.3.3

New text added outlining the requirements of what is to be included with the written operating procedures for training new employees.

### R.61-64 RHB 7.8.4

Renumbered and changed to subsection item 7.9.4.

Text was added and deleted for clarity. Referral number for the requirement for operating training and operating procedures changed due to renumbering.

### R.61-64 RHB 7.9.2

Text moved for personnel monitoring devices to be assigned to and worn by one individual, moved to subsection subitem 3.12.3.1.1.

R.61-64 RHB 7.9.4

With this rewrite, this text is no longer applicable. Part III stipulates radiation dose values.

Part VIII -Radiation Safety Requirements for Industrial Uses of Radiographic Sources

This Section has been renumbered in alphanumeric order.

R.61-64 RHB 8.4

This Section refers to radiation survey instruments.

Text added regarding radiation survey instruments “All provisions of RHB 1.4.4 apply”.

R.61-64 RHB 8.4.1

Renumber and moved to subsection item 1.4.4. A new subsection subitem number 1.4.4.1.

R.61-64 RHB 8.4.1.1

Renumbered and moved to subsection subitem 1.4.4.2.

R.61-64 RHB 8.4.1.1.1

Renumbered and moved to subsection subitem 1.4.4.2.1.

R.61-64 RHB 8.4.1.1.2

Renumbered and moved to subsection subitem 1.4.4.2.2.

R.61-64 RHB 8.4.1.2.3

Renumbered and moved to subsection subitem 1.4.4.2.3.

R.61-64 RHB 8.4.1.1.4

Renumbered and moved to subsection subitem 1.4.4.2.4.

R.61-64 RHB 8.4.1.2

Renumbered and moved to subsection subitem 1.4.4.2.5.

R.61-64 RHB 8.4.1.3

Renumbered and moved to subsection subitem 1.4.4.4.

R.61-64 RHB 8.6

New title for Registration and Posting requirements for industrial x-ray facilities and equipment.

R.61-64 RHB 8.6.1

A new subsection subitem was added which stipulates registration requirements for industrial facilities.

R.61-64 RHB 8.6.2

Posted areas for radiography usage are stipulated in Section 3.15.

R.61-64 RHB 8.7

Typographical correction the word Minimum “Personal” Radiation Safety Requirements was changed to “Personnel”.

R.61-64 RHB 8.7.1.3

Text changed in reference to demonstrating competency. The word “his” was changed to “the” assignment.

R.61-64 RHB 8.8.1

Text added regarding dose limits. Referring to the limits established in “Part III” of the regulations.

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### R.61-64 RHB 8.9.1

Typographical correction from the previous revision. The word “quarterly” was changed to “annually”. The registrant must inspect, and repair components associated with the radiation safety of the machines “annually”.

### R.61-64 RHB 8.10

For clarity, text regarding “Film badges (or other dosimeters approved by the Department) shall be:” was deleted. Text was added referring “Part III” as a reference that stipulates all the requirements regarding Personnel Monitoring.

### R.61-64 RHB 8.10.1

For improved organization regarding Personnel Monitoring “assigned to and worn only by one individual; and” was move to Part III, subsection subitem 3.12.3.1.1.

### R.61-64 RHB 8.10.2

For improved organization regarding the guidelines for a lost or damaged film badge or TLD was moved under Part III, subsection subitem 3.12.3.1.3.

### R.61-64 RHB 8.12

Renumbered and moved to Section 8.6.2.

“Posting” requirements. Posted areas for radiography usage are stipulated in Section 3.15.

### R.61-64 RHB 8.13.1.6.3

Subsection subitem was renumbered to RHB 8.12.1.6.3 reference was revised.

### R.61-64 RHB 8.13.1.9.5

Subsection subitem was renumbered to RHB 8.12.1.9.5 and references were revised.

### R.61-64 RHB 8.13.2.3

This subsection subitem was renumbered to RHB 8.12.2.3 and revised for grammatical accuracy.

### R.61-64 RHB 8.13.2.4 through RHB 8.13.2.7

These subsection subitems are in reference to the requirements for shielding plans. These requirements are now addressed under subsection item RHB 4.4

### R.61-64 RHB 8.13.3.8

This subsection subitem was renumbered to RHB 8.12.3.8 and revised to add “RHB” for consistency with other parts of this regulation.

### R.61-64 RHB 8.12.4.3

A new subsection subitem requirement regarding radiation levels that will help to ensure that the local components of an industrial x-ray unit have sufficient shielding or access control such that no radiation in any area surrounding the component could result in a dose to an individual that exceeds the limits listed in subsection subitem 3.3.2.

## Part IX – Definitions

This Section has been renumbered in alphanumeric order.

### R.61-64 RHB 9.41

Section was revised to correct formula.

### R.61-64 RHB 9.50

Section was revised to add “RHB” for consistency with other parts of this regulation.

R.61-64 RHB 9.118

A new section was added to define “Industrial x-ray equipment” and to give examples of such types of equipment.

R.61-64 RHB 9.123

RHB 9.123 was renumbered to RHB 9.124 and was revised to add “RHB” for consistency with other parts of this regulation.

R.61-64 RHB 9.134

A new section was added to define “Licensed Practitioner,” as outlined by the South Carolina Department of Labor, Licensing, and Regulation.

R.61-64 RHB 9.149

A new section was added to define “Medical Device”, as requested by commenter during the Staff Informational Forum.

R.61-64 RHB 9.154

RHB 9.154 was renumbered to RHB 9.157 and was revised to correct spelling error.

R.61-64 RHB 9.223

RHB 9.223 was renumbered to RHB 9.226 and was revised to correct spelling errors.

Part X -Notices, Instructions, and Reports to Workers: Inspections

R.61-64 RHB 10.5.5

The subsection subitem was revised to allow more than one worker to accompany an inspector as long as said workers comply with 10.5.6.

R.61-64 RHB 10.9

New section was added to clarify the provisions of the HIPAA as it pertains to these regulations.

Part XI - Regional Calibration Laboratory

R.61-64 RHB 11.2.1

Reworded to clarify the requirements of laboratory accreditation by the Conference of Radiation Control Program Directors.

R.61-64 RHB 11.2.2

This requirement stipulates that the South Carolina Regional Calibration Laboratory (SCRCL) will perform accredited procedures traceable to the National Institute of Standards and Technology.

R.61-64 RHB 11.2.2.1

A new subsection subitem was added to stipulate that the SCRCL will perform yearly proficiency tests based upon the protocols of the National Institute of Standards of Technology.

R.61-64 RHB 11.2.3

Text was added indicating that the SCRCL will follow the written operating procedures regarding all instruments entrusted to the SCRCL.

R.61-64 RHB 11.2.4

A new subsection item was added for clarification regarding contaminated instruments received at the South Carolina Regional Calibration Laboratory.

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### R.61-64 RHB 11.2.5

A new subsection item was added stipulating that each Geiger-Mueller, Ion Chamber, and R Meter will be calibrated at two points on each scale.

### R.61-64 RHB 11.3.1

This Section, and list of fees associated with calibration services provided at the South Carolina Regional Calibration Laboratory was updated. There are no proposed fee increases related with this Section in the Regulations.

(a) In this table the following wording “instrument Calibrated at 2 points on each scale” was deleted.

(b) Since the Pic 6 instrument is considered an Ion Chamber it was removed from the pricing table.

(c) 300Volt Battery was moved and placed under the breakdown of listed batteries carried at the SCRCL.

### R.61-64 RHB 11.3.2

Text changed regarding shipping and insuring instruments. Charges will remain the same as the cost to the Department.

### R.61-64 RHB 11.3.3

Text updated for clarity regarding billing the client for calibrations and related calibration services.

### **Instructions:**

Replace R.61-64, X-rays (Title B) in entirety with this amendment.

### **Text:**

61-64. X-rays (Title B).

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### PART I GENERAL PROVISIONS

#### RHB 1.1 Scope.

Except as otherwise specifically provided, these regulations apply to all persons who receive, possess, use, transfer, own, or acquire any x-ray producing machine. The provisions of these regulations shall not be interpreted as limiting the intentional exposure of patients to radiation for the purpose of diagnosis, analysis, or therapy by persons licensed to practice one or more of the health professions within the authority granted to them by statute or regulation.

#### RHB 1.2 Prohibited Use.

1.2.1 It shall be unlawful to operate or maintain fluoroscopic devices for fitting or selling footwear.

1.2.2 It shall be unlawful to intentionally apply radiation to human beings except by, or under the direct supervision of, persons licensed to practice the health professions and authorized to use such radiation.

1.2.3 It shall be unlawful to use, receive, own, or possess x-ray equipment unless the facility is registered with the Department and is operated in compliance with all applicable provisions.

1.2.4 No person, in any advertisement, shall refer to the fact that any x-ray facility, x-ray machine, or any activity under these regulations has been approved by the Department.

1.2.5 It shall be unlawful to use hand-held non-image intensified fluoroscopic screens.

1.2.6 It shall be unlawful to use plastic pointed position indicating devices on intraoral dental systems.

1.2.7 The use of any source of radiation may be prohibited when it is determined by the Department to be detrimental to public health and safety.

1.2.8 It shall be unlawful to use hand-held radiographic or fluoroscopic imaging devices, or hand-held therapy units, except for contact therapy units operated according to Part VI of these regulations.

1.2.9 It shall be unlawful to use fluoroscopy for positioning a patient for radiographic imaging, except when done by a licensed practitioner of the healing arts, or except for radiation therapy simulators.

1.2.10 It shall be unlawful for a person other than a licensed practitioner of the healing arts as defined by the South Carolina Department of Labor, Licensing, and Regulation to use fluoroscopy when the licensed practitioner of the healing arts is not physically present in the room, except during therapy simulations, maintenance activities, and training courses.

1.2.11 It shall be unlawful to use direct exposure x-ray film (without intensifying screens) for all radiological imaging other than intraoral dental radiography, therapeutic portal imaging, and industrial radiography.

1.2.12 It shall be unlawful to use a mammographic imaging system not specifically designed by the manufacturer for imaging of the breast.

1.2.13 It shall be unlawful to intentionally expose a human to electronically produced ionizing radiation except for healing arts purposes, or as part of a research protocol authorized by an institutional review board conforming to 21 CFR 50 and 21 CFR 56.

1.2.14 No person shall make, sell, lease, transfer, lend, repair, or install x-ray equipment or the supplies used in connection with such equipment unless such supplies or equipment, when properly placed in operation and properly used will meet the requirements of these regulations. This includes but is not limited to such items as cones, filters, adequate timers, and fluoroscopic shutters (where applicable). Also, such persons shall be registered with the Department in accordance with RHB 2.5.

#### RHB 1.3 Inspections.

1.3.1 Each registrant shall afford, at all reasonable times, the Department or its duly authorized representative the opportunity to inspect sources of radiation and the premises and facilities wherein such sources of radiation are used or stored.

1.3.2 Each registrant shall make available to the Department or its authorized representative for inspection, upon reasonable notice, records maintained pursuant to these regulations.

1.3.3 The Department shall have the right to enter at all reasonable times upon any private or public property, except property under the jurisdiction of the federal government, for the purpose of determining whether there is compliance with the provisions of the Act and regulations issued by the Department pursuant thereto.

1.3.4 The Department is authorized by law to enter and inspect property in order to determine compliance with Department regulations. Such entry and inspection falls under the health oversight activities exception of the Health Information Portability and Accountability Act (HIPAA). Therefore, when protected health information is necessary for determining compliance with Department regulations, protected health information may be used and disclosed to the Department without the subject's authorization.

#### RHB 1.4 Test and Surveys.

1.4.1 Each registrant shall make or cause to be made such surveys as are necessary for him to comply with these regulations.

1.4.2 Each registrant shall perform, upon instructions from the Department, or shall permit the Department to perform, such reasonable tests as the Department deems appropriate or necessary including, but not limited to, tests of:

1.4.2.1 Sources of radiation;

1.4.2.2 Facilities wherein sources of radiation are used or stored;

1.4.2.3 Radiation detection and monitoring instruments; and

1.4.2.4 Other equipment and devices used in connection with utilization or storage of sources of radiation.

1.4.3 Results of such tests and surveys shall be submitted to the Department upon request.

#### 1.4.4 Radiation Survey Instruments.

1.4.4.1 The radiation survey instrument used shall have a minimum operation range consistent with the radiation field being measured.

1.4.4.2 Each radiation survey instrument shall be maintained annually.

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1.4.4.2.1 Each radiation survey instrument shall be calibrated at intervals not to exceed 12 months and after each instrument servicing.

1.4.4.2.2 Each radiation survey instrument shall be calibrated such that accuracy within 20 percent traceable to a national standard can be demonstrated.

1.4.4.2.3 Each radiation survey instrument shall be calibrated at two or more widely separated points, other than zero, on each scale.

1.4.4.2.4 Each radiation survey instrument shall be calibrated according to manufacturer's specifications.

1.4.4.2.5 Records of these calibrations shall be maintained for inspection by this Department.

1.4.4.3 The registrant shall make available to survey instrument users the manufacturer's instructions of the survey instrument including any restrictions of the operating techniques required for the proper operation of the particular instrument.

1.4.4.3.1 The registrant shall adhere to the manufacturer's instructions in all respects.

1.4.4.3.2 The user shall be able to demonstrate familiarity and competence with these instructions.

1.4.4.3.3 Documentation must be maintained, indicating that the user has read and agrees to adhere to the operating instructions.

1.4.4.3.4 The operator shall check each survey instrument for proper operation with a dedicated check source each day of use to ensure the instrument is operation properly. Documentation of these checks shall be maintained for Department review.

### RHB 1.5 Exemptions.

1.5.1 The Department may, upon application by any user, or upon its own initiative grant such exemptions from the requirements of these regulations as it determines are authorized by law, and will not result in undue hazard to health, life, or property. Applications for exemptions shall specify why such exemption is necessary.

1.5.2 Before granting an exemption, the Department shall determine that there is reasonable and adequate assurance that:

1.5.2.1 The occupational dose to any individual adult will not exceed those specified in RHB 3.4.

1.5.2.2 The dose to an individual member of the public will not exceed those specified in RHB 3.9.

1.5.2.3 There is no significant hazard to life or property.

## RHB 1.6 Additional Requirements.

1.6.1 The Department may, by rule, regulation, or order, impose upon any registrant such requirements in addition to those established in these regulations as it deems appropriate or necessary to minimize danger to public health and safety or property.

1.6.2 The Department is authorized to inspect and investigate the premises and operations and personnel of any radiation installation, whether or not such installation is required to be registered by the Department, for the purpose of studying and evaluating the health hazard(s) caused by the use and operation of such machines and material.

1.6.3 Equipment Not Covered In Regulations. Prior to operation of x-ray producing equipment not specifically covered in these regulations, the facility and the vendor shall submit for review and approval to the Department a listing of manufacturer's specifications for the equipment, an analysis of exposure rates around the equipment, and written operating procedures describing how the equipment is to be used.

1.6.4 Radiation Safety Officer. The registrant shall designate an individual who will be responsible for radiation protection at the facility. Such individual shall:

1.6.4.1 Be qualified by training and experience concerning all hazards and precautions involved in operating the equipment for which he is responsible;

1.6.4.2 Develop and implement a program of radiation safety for effective compliance with the applicable requirements of these regulations;

1.6.4.3 Give instructions concerning hazards and safety practices to individuals who may be exposed to radiation from the equipment;

1.6.4.4 Ensure that surveys are made, procedures are carried out, and radiation safety instructions are given as required by these regulations.

## RHB 1.7 Violations.

1.7.1 The Department may obtain an injunction or other court order prohibiting any violation or any provision of the Act or any regulation or order issued thereunder. Any person who wilfully violates any provision of the Act or any regulation or order issued thereunder shall be guilty of a misdemeanor and, upon conviction, shall be punished by fine or imprisonment or both, as provided by the Act.

1.7.2 Any person found in violation of any regulation shall notify the Department, in writing, within twenty (20) calendar days, from the date of citation with respect to action that has been taken or planned to correct the violation.

1.7.3 All violations shall be corrected within sixty (60) calendar days from the date of citation. The Department shall be notified in writing of all action taken to correct the violations.

1.7.4 The Department is authorized to hold public hearings, compel attendance of witnesses, make findings of fact and determinations and to assess fines and civil penalties relating to violations of the provisions of the Act or any regulation, temporary or permanent order, or final determination of the Department.

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1.7.5 The Department may impose a civil penalty not to exceed Twenty-five Thousand Dollars (\$25,000) on a person who violates a provision of the Act, rules, regulations, or orders issued. Each day of continued violation shall constitute a separate offense in computing the civil penalty. Civil penalties shall be assessed as specified in RHB 1.13.

### RHB 1.8 Enforcement.

1.8.1 Upon determination by the Department that the Act or these regulations have been violated or that a public health risk exists, the Department will:

1.8.1.1 Provide written notification to the non-compliant facility as soon as possible after violations are noted which:

1.8.1.1.1 Cites each section of the Act or regulations violated.

1.8.1.1.2 Specifies the manner in which the registrant failed to comply.

1.8.1.1.3 Requires submission of a timely and comprehensive corrective action plan, including a time schedule for completion of the plan.

1.8.1.1.4 Establishes a firm time schedule within which a corrective action plan must be submitted. The Department will approve the plan and proposed time schedule for its completion if the plan is adequate.

1.8.1.2 In cases where the registrant fails to comply with the conditions of the written notification, the Department will seek further enforcement action, appropriate penalties and direct remedial relief.

1.8.1.3 If the registrant fails to comply with the requirements of the regulations within ten days, or in cases where there is an imminent hazard to human health and safety, the Department will take one or a combination of the following steps:

1.8.1.3.1. Issue an administrative order which:

1.8.1.3.1.1 Imposes an appropriate civil penalty; or

1.8.1.3.1.2 Requires corrective action; or

1.8.1.3.1.3 Impounds or orders the impounding of sources of radiation in accordance with the Act; or

1.8.1.3.1.4 Revokes the facility's registration in accordance with Part II; or

1.8.1.3.2 Requests the Department attorney or the attorney general to seek court action to enjoin violations and seek conviction for a simple misdemeanor; or

1.8.1.3.3 Take enforcement action that the Department feels appropriate and necessary and is authorized by law.

1.8.2 Under an actual or potential condition posing a risk to any individual comparable to a Major severity level violation, the Department may immediately impound or order the impounding of sources of radiation in accordance with the Act.



## RHB 1.9 Impounding.

1.9.1 The Department may immediately impound or order the impounding of sources of radiation in the possession of any person who fails to comply with these regulations or provisions of the Act, or when the Department deems a situation to constitute an emergency.

## RHB 1.10 Records.

1.10.1 Each registrant shall keep records showing the receipt, transfer, use, storage, and disposal of all sources of radiation and major components, including, but not limited to controls, tubes, tables, cassette holders, and transformers. These records shall be maintained by the registrant until disposal is authorized by the Department. Such authorization shall be made in writing. All records shall be readily available at the facility for Department review. Additional record requirements are specified elsewhere in these regulations.

1.10.2 The registrant shall maintain the following information for each x-ray system for inspection by the Department:

1.10.2.1 Model and serial numbers of all tubes, controls, and beam limiting devices;

1.10.2.2 Tube rating charts and cooling curves, for units certified by the Food and Drug Administration, and for units regulated under Part IV and Part V;

1.10.2.3 Aluminum equivalent filtration of the useful beam, including any routine variation for units regulated under Part IV and Part V;

1.10.2.4 Records of surveys, equipment performance tests, maintenance, and modifications performed on the x-ray system(s), with the names of persons who performed such services. Records shall be maintained for five years or until the next Department inspection, whichever is later;

1.10.2.5 A copy of all correspondence with the Department regarding that x-ray system.

1.10.3 Each registrant possessing more than 10 radiation machine controls shall maintain a current inventory listing that indicates the model number, serial number, shielding acceptance number (if applicable), date of last equipment performance test, location and status of each control. The inventory listing shall be made available to the Department upon request.

1.10.4 All records required by these regulations shall be accurate and true.

## RHB 1.11 Records and Reports of Misadministration.

## 1.11.1 Therapy Misadministrations.

When a misadministration involves any therapy procedure, the registrant shall notify the Department by telephone, fax, or electronic mail no later than 24 hours after discovery of the misadministration. The registrant shall also notify the referring physician and the patient of the misadministration no later than 24 hours after its discovery, unless the referring physician personally informs the registrant that he or she will inform the patient or that, based on medical judgment, telling the patient would be harmful. The registrant is not required to notify the patient without first consulting the referring physician. If the referring physician or patient cannot be reached within 24 hours, the registrant shall notify the patient as soon as possible thereafter. The registrant may not delay any appropriate medical care for the patient, including any necessary remedial care as a result of the misadministration, because of any delay in notification.

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1.11.1.1 The registrant shall submit a written report to the Department within 15 days after the discovery of the misadministration. The report must not include the patient's name or other information that could lead to identification of the patient. The written report must include the registrant's name; the prescribing physician's name; a brief description of the event; why the event occurred; the effect on the patient; what improvements are needed to prevent recurrence; the action taken to prevent recurrence; whether the registrant notified the patient or the patient's responsible relative or guardian; and if not, why the individual involved was not informed; and if the patient was notified, what information was provided to the patient.

1.11.1.2 The registrant shall furnish the following to the patient within 15 days after discovery of the misadministration if the patient was notified:

1.11.1.2.1 A copy of the report that was submitted to the Department; or

1.11.1.2.2 A brief description of both the event and the consequences, as they may affect the patient, provided a statement is included that the report submitted to the Department can be obtained from the registrant.

1.11.2 Diagnostic Misadministrations. When a misadministration involves a diagnostic procedure, the registrant shall promptly investigate its cause, make a record for the Department review, and maintain the record as directed in RHB 1.11.3.

1.11.3 Each registrant shall retain a record of each therapy misadministration for ten years and three years for each diagnostic misadministration. The record must contain the names of all individuals involved in the event (including the prescribing physician, allied health personnel, the patient, and the patient's referring physician), the patient's social security number or identification number if one has been assigned, a brief description of the event misadministration, the effect on the patient, what improvements are needed to prevent recurrence; and the actions taken to prevent recurrence.

1.11.4 Aside from the notification requirement, nothing in RHB 1.11.1 through 1.11.3 shall affect any rights or duties of registrants and physicians in relation to each other, registrants, patients or responsible relatives or guardians.

### RHB 1.12 Communications.

1.12.1 All communications and reports concerning these regulations, and registrations filed thereunder, shall be addressed to the Department at:

SC Department of Health and Environmental Control  
Bureau of Radiological Health  
2600 Bull Street  
Columbia, South Carolina 29201

1.12.2 Material False Statements. It shall be unlawful to make a material false statement to the Department regarding information contained in the application for registration, information pertaining to an inspection or any other information required by any provision of these regulations.

### RHB 1.13 Administration of Civil Penalties.

1.13.1 Assessment. Assessment of civil penalties shall be based on the following criteria:

1.13.1.1 the seriousness of the violation(s);

1.13.1.2 previous compliance history;

1.13.1.3 the amount necessary to deter future violations;

1.13.1.4 efforts to correct the violation; and

1.13.1.5 any other mitigating or enhancing factors.

1.13.2 Severity Levels. The seriousness of violations shall be categorized by one of the following severity levels.

1.13.2.1 Major. Violations that are most significant and have a direct negative impact on occupational or public health and safety, or which represent a significant deviation from the requirements of this regulation.

1.13.2.2 Moderate. Violations that are of more than minor significance, but if left uncorrected, could lead to more serious circumstances, or which represent a moderate deviation from the requirements of this regulation.

1.13.2.3 Minor. Violations that are of minor safety significance, or which represent a minor deviation from the requirements of this regulations.

1.13.2.4 In each case, the severity of a violation will be characterized at the level best suited to the significance of the particular violation. In some cases, violations may be evaluated in the aggregate and a single severity level assigned for a group of violations.

1.13.3 Application. Examples of violations in each severity level are given in RHB 1.13.4.3. While examples are given for determining the appropriate severity level for violations, the examples are neither exhaustive nor controlling. These examples do not create new requirements. Each is designed to illustrate the significance which the Department of Health and Environmental Control places on a particular type of violation of state requirements. Adjustments to the values listed in RHB 1.13.4.1 under each severity level may be made for the presence or absence of the following factors:

1.13.3.1 Prompt Identification and Reporting. Reduction of a civil penalty may be given when a Registrant identifies the violation and promptly reports the violation to the Department. In weighing this factor, consideration will be given to, among other things, the length of time the violation existed prior to discovery, the opportunity available to discover the violation, the ease of discovery and the promptness and completeness of any required report. No consideration will be given to this factor if the Registrant does not take immediate action to correct the problem upon discovery.

1.13.3.2 Corrective Action to Prevent Recurrence. Recognizing that corrective action is always required to meet regulatory requirements, the promptness and extent to which the Registrant takes corrective action, including actions to prevent recurrence, may be considered in modifying the civil penalty to be assessed. Unusually prompt and extensive corrective action may result in reducing the proposed civil penalty. On the other hand, the civil penalty may be increased if initiation of corrective action is not prompt or if the corrective action is only minimally acceptable. In weighing this factor, consideration will be given to, among other things, the timeliness of the corrective action, degree of Registrant initiative, and comprehensiveness of the corrective action - such as whether the action is focused narrowly to the specific violation or broadly to the general area of concern.

1.13.3.3 Compliance History. Reduction of the civil penalty may be given for prior good performance in the general area of concern. In weighing this factor, consideration will be given to, among other things, the effectiveness of previous corrective action for similar problems, overall performance such as previous compliance history in the area of concern. For example, failure to implement previous corrective action for prior similar problems may result in an increase in the civil penalty.

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1.13.3.4 Prior Notice of Similar Events. The civil penalty may be increased for cases where the Registrant had prior knowledge of a problem as a result of a Registrant audit, or specific industry notification, and had failed to take effective preventive steps.

1.13.3.5 Multiple Occurrences. The civil penalty may be increased where multiple examples of a particular violation are identified during the inspection period.

1.13.3.6 The above factors are additive. However, the civil penalty will not exceed twenty five thousand dollars (\$25,000) for any one violation. Each day of noncompliance shall constitute a separate violation.

1.13.4 The Department shall issue civil penalties according to the following schedule:

1.13.4.1 Penalty Matrix

Deviation from Requirement:	Major (11-30)	Moderate (4-10)	Minor (1-3)
Potential for Harm:	\$25,000-5,000	\$15,000-5,000	\$10,000-2,500
Major (11-70)			
Moderate (6-10)	\$10,000-2,500	\$7,500-1,000	\$5,000-500
Minor (0-5)	\$5,000-1,000	\$3,000-500	\$2,500-250

Calculation of Base Penalty:

Each violation is assigned a relative point value as follows: Potential for Harm- 0-70, with 70 being maximum harm; Deviation from Requirement- 1-30, with 30 being the maximum deviation. Add the two values together, convert to a decimal value (15 to .15, for example), and multiply by the maximum per day per violation per civil penalty (\$25,000). This is the base civil penalty per violation. The base penalty may be increased for repeat violations, multi-day penalties, or degree of recalcitrance, wilfulness, negligence, or indifference.

Minimum Increase for Repeat Violations Found on Follow-up Inspections or Reinspections

Second Offense (First Follow-up Inspection or First Reinspection)	15%
Third Offense (Second Follow-up Inspection or Second Reinspection)	30%
Fourth Offense (Third Follow-up Inspection or Third Reinspection)	45%
Fifth and Subsequent Offenses	60%

Multi-Day Penalties

Increase penalty 1% to 7% for each day of noncompliance.

Degree of Recalcitrance, Wilfulness, Negligence, or Indifference

Increase Penalty 10% to 50%

1.13.4.2 The Department reserves the right to impose a civil penalty up to Twenty-five Thousand Dollars on a person who violates the regulations in such a manner so as to present an imminent hazard to human health and safety. The Twenty-five Thousand Dollar civil penalty may be levied for the following:

1.13.4.2.1 Two or more incidents of workers receiving excess radiation exposures, when such exposures are contrary to the provisions of RHB 3.4.

1.13.4.2.2 Two or more incidents of members of the general public, or non-radiation workers, receiving excess radiation exposures. (3.9)

1.13.4.2.3 Two or more incidents in a one year period of deliberate exposure of an individual except by or under the direct supervision of an individual licensed to engage in the healing arts. (1.2.2)

1.13.4.2.4 Two or more incidents on two consecutive inspections of failing to perform required equipment performance testing, surveys, tests, or evaluations. (1.4)

1.13.4.2.5 Four or more incidents in a one year period of making, selling, leasing, transferring, lending, assembling, or installing equipment without the equipment meeting all applicable regulations when properly placed in operation. (2.7.2)

1.13.4.2.6 Two or more incidents in a five year period of initiating a healing arts screening program without prior approval from the Department. (4.2.11.2)

1.13.4.2.7 Two or more incidents on two consecutive inspections of failing to provide a safety device on open-beam configuration analytical x-ray equipment. (7.5.1)

1.13.4.2.8 Two or more incidents on two consecutive inspections of ESEs that vary from the average ESE by more than a factor of 2, as determined by Appendix D of Part IV. (4.2.13.2)

1.13.4.2.9 Operation of a mammography facility without possessing a current, valid certificate issued by the Department, as required by RHB 5.2.

1.13.4.2.10 Two or more incidents of a registrant failing to ensure that operators of x-ray equipment possess a valid, current certificate from the South Carolina Radiation Quality Standards Association. (4.2.2, 6.3.3.1)

#### 1.13.4.3 Example of Violations with Potential for Harm

##### Major

Workers receiving excess radiation exposures, when such exposures are contrary to the provisions of RHB 3.4.

Members of the general public, or non-radiation workers, receiving excess radiation exposures. (3.9)

Deliberate exposure of an individual except by or under the direct supervision of an individual licensed to engage in the healing arts. (4.2.11)

Two or more incidents on three consecutive inspections of failing to perform required equipment performance tests, surveys, or evaluations. (1.4)

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Two or more incidents in a one year period of making, selling, leasing, transferring, lending, assembling, or installing equipment without it meeting all applicable regulations when properly placed in operation. (2.7.2)

Exposure to an individual for training, demonstration, or other purposes when there are not healing arts requirements or proper prescription provided. (4.2.11.1)

Two or more incidents on two consecutive inspections of a fluoroscopic system with a source to skin distance less than those specified in RHB 4.9.1.

Two or more incidents on two consecutive inspections of a fluoroscopic system with an x-ray field exceeding the length or width of the visible area of the image receptor by greater than 5%, or the sum of the excess length and width of greater than 6%. (4.9.2.2)

Initiating or conducting a healing arts screening program without prior approval from the Department. (4.2.11.2)

Failing to provide a safety device on open-beam configuration analytical x-ray equipment. (7.5.1)

ESEs that vary from the average ESE by more than a factor of 2, as determined by Appendix D of Part IV. (4.2.13.2)

A fluoroscopic x-ray system with a tabletop entrance exposure rate that exceeds the limits specified in 4.9.4 by more than a factor of 2.

Two or more incidents on two consecutive inspections of a fluoroscopic system such that the entire x-ray beam is not intercepted by the primary protective barrier. (4.9.2.1)

Two or more incidents on two consecutive inspections where a required system or equipment designed to prevent or mitigate a serious safety event or unnecessary exposure is absent or inoperable.

An x-ray system having a malfunction such that inadvertent exposures could occur, e.g., a system such that when the exposure switch is activated, not one but repeated exposures occur, or the timer fails to terminate exposure, or exposure initiated without utilizing the exposure switch.

Two or more incidents on two consecutive inspections that have a potential for serious overexposure of patients, radiation workers, non-radiation workers, or a member of the public.

### Moderate

Making, selling, leasing, transferring, lending, assembling, or installing equipment without it meeting all applicable regulations when properly placed in operation. (2.7.2)

Routine holding of patients or films at a registrant's facility. (4.2.12.4)

Two or more incidents on two consecutive inspections of a registrant failing to ensure that an x-ray operator receives the training required by RHB 4.2.3.7 or RHB 6.3.3.9.

Two or more incidents on two consecutive inspections of lack of adequate filtration present in an x-ray machine. (4.3.5)

Two or more incidents on two consecutive inspections of failure to use exposure reduction devices properly (e.g., collimators, filtration). (4.3.5, 4.7.4.1, 4.7.14)

Two or more incidents on two consecutive inspections of having a fluoroscopic system with a tabletop entrance exposure rate that exceeds the limits specified in 4.9.4.

Two or more incidents on two consecutive inspections of ESEs that vary from the average ESE as determined by Appendix D of Part IV. (4.2.13.2)

Two or more incidents on two consecutive inspections of having a capacitor storage radiographic system such that the standby radiation exceeds the limits specified in RHB 4.3.4 by a factor of 2.

Two or more incidents on two consecutive inspections of failure to provide appropriate warning devices as required by RHB 7.4.4.

Two or more incidents on two consecutive inspections of failure to secure unused ports on radiation source housings. (7.4.5.5)

Two or more incidents on two consecutive inspections of inadequate mechanical support of tube head. (4.3.8)

Use of mechanical timer. (4.3.11)

Use of x-ray equipment before submission and approval of a shielding plan. (4.4.3)

Two or more incidents in two consecutive inspections of failing to meet the x-ray control requirements of RHB 4.5.4.

Two or more incidents on two consecutive inspections of failure to provide shutters on open-beam configuration x-ray units. (7.5.6.2)

Two or more incidents on two consecutive inspections of failure to control access to equipment, or failure to control access to restricted areas. (7.5.3)

Two or more incidents on two consecutive inspections of an intraoral dental x-ray unit capable of operation in the above 50 kVp range for which the field size at the cone tip is greater than or equal to 9 centimeters or which exhibit a minimum SSD less than 18 centimeters. (4.5.1, 4.5.2)

Two or more incidents on two consecutive inspections of a mobile radiographic system for which the minimum source to skin distance is less than 30 centimeters. (4.8.12)

#### Minor

Two or more incidents on two consecutive inspections of having a capacitor storage radiographic system such that the standby radiation exceeds the limits specified in RHB 4.3.4.

Repeated violations (Two or more incidents on two consecutive inspections) not covered in a more severe category that have minor safety significance.

#### 1.13.4.4. Examples of Violations Categorized by Deviation from the Requirement

#### Major

Failure to allow authorized Department personnel access to x-ray facilities or equipment to conduct inspections or investigations. (1.3.1)

Two or more failures on two consecutive inspections to correct violations within sixty days. (1.7.3)

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Two or more incidents of a person who is not certified by the South Carolina Radiation Quality Standards Association using or exhibiting a title, sign, display or declaration that misleads the public to believe the person is authorized to apply ionizing radiation on humans for diagnostic or therapeutic purposes. (4.2.2.4, 6.3.3.6)

Continuation of registrant activities after revocation of registration.

Two or more incidents of making material false statements to the Department. (1.12.2)

Two or more failures of a person to apply for registration approval prior to beginning operation of an x-ray facility. (2.4)

Two or more failures of a registrant to register x-ray equipment. (2.1.1)

Two or more incidents of providing x-ray vendor services without being registered with the Department. (2.6.1)

Two or more failures on two consecutive inspections of a person to notify the Department in writing within thirty days when he has sold, leased, transferred, lent, assembled, or installed x-ray equipment. (2.5.3)

Two or more failures of a vendor to notify the Department of installation of equipment. (2.7.1)

Intentional exposure of a radiation monitoring device to deceptively indicate a dose. (3.12.2)

Two or more incidents on two consecutive inspections of failure to provide personnel monitoring if required. (3.12)

Two or more incidents on two consecutive inspections of failing to adhere to the operating procedures. (4.2.3)

Two or more incidents on two consecutive inspections of management action to discriminate against an employee for attempting to communicate or for actually communicating with the Department. (10.7.3)

Two or more incidents of operation of an out-of-state x-ray machine for more than 365 days. (2.8)

Two or more incidents of a registrant failing to report or record misadministrations. (1.11)

### Moderate

Two or more incidents on two consecutive inspections of failing to perform a repeat analysis. (4.2.16.4)

Two or more incidents on two consecutive inspections of failing to perform densitometric and sensitometric testing if required by RHB 4.2.17.2.7.

Two or more incidents on two consecutive inspections of failing to perform periodic measurements of entrance exposure rates on fluoroscopes. (4.9.4.3.6)

Failure of a person to register prior to providing or offering to provide x-ray services. (2.6.1)

Making, selling, leasing, transferring, lending, assembling, or installing equipment without it meeting all applicable regulations when properly placed in operation. (2.7.2)

Failure of a registrant to display each operator's current certificate from the South Carolina Radiation Quality Standards Association, as required by RHB 4.2.2.6 or RHB 6.3.3.8.



Failure of a registrant to register x-ray equipment with the Department. (2.1.1)

Failure of a registrant to notify the Department when he has sold, leased, transferred, lent, assembled, or installed x-ray equipment. (2.5.3)

Failure to notify the Department prior to operating an out-of-state x-ray machine in South Carolina. (2.8)

Failure to make notifications as required by RHB 3.25.1.

Failure of a vendor to notify the Department of installation of equipment. (2.7.1)

Failure by a registrant to correct violations within sixty days. (1.7.3)

Failure to report misadministrations to the Department as required. (1.11)

Two or more incidents in two consecutive inspections of a registrant failing to verify that a person providing x-ray machine services or servicing is registered with the Department. (2.5.4)

Two or more incidents on two consecutive inspections of a registrant not notifying the Department within 20 days of a violation citation with regards to corrective action taken or planned to correct the violation. (1.7.2)

Minor

Failure to maintain required records including, but not limited to, patient logs, utilization logs, and technique charts.

Failure to post Department notices as required in RHB 10.2.

Failure to correctly label x-ray equipment.

1.14 Compliance with Other Laws. The registrant shall comply with all other applicable federal, state and local regulations.

1.15 Severability. If any provision of this regulation or its application to any person or circumstance is held invalid, the invalidity does not affect other provisions or applications of the regulation which can be given effect without the invalid provision or application, and to this end the provisions of the regulation are severable.

1.16 Any person to whom an order is issued may appeal it pursuant to applicable law, including S.C. Code Title 44, Chapter 1; and Title 1, Chapter 23.

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### **PART II REGISTRATION OF X-RAY MACHINES AND SERVICES**

#### **RHB 2.1 Scope.**

This part provides for the registration of x-ray machines, (controls and tubes), and facilities, and for the registration of persons providing x-ray machine installation, servicing, and/or services.

2.1.1 Except as specifically exempted in RHB 2.2, each person who receives, possesses, uses, or acquires an x-ray machine shall register the control and tubes of such machine with the Department in accordance with the requirements of this Part.

2.1.2 In addition to the requirements of this Part, all registrants are subject to the applicable provisions of other Parts of these regulations.

#### **RHB 2.2 Exemptions.**

2.2.1 Electronic equipment that produces radiation incidental to its operation for other purposes is exempt from the registration requirements of this part, providing dose equivalent rate averaged over an area of 10 square centimeters does not exceed 0.5 mrem per hour at 5 cm from any accessible surface of such equipment. The production, testing, or factory servicing of such equipment shall not be exempt.

2.2.2 Television receivers, video display terminals, and computer monitors, when used without modification to their internal or external construction, are exempt from the requirements of this Part.

2.2.3 Any facility where a federal agency has exclusive jurisdiction is exempt from the requirements of this Part.

2.2.4 X-ray machines while in transit or storage incident thereto are exempt from the requirements of this Part.

#### **RHB 2.3 Application and Review Fees.**

2.3.1 Facility Application Fee. Each registrant shall pay a non-refundable application fee of sixty two dollars and fifty cents upon submission of the initial Facility Registration Approval Request form. A facility registration approval shall not be issued until payment of the application fee.

2.3.2 Shielding Plan Review Fee. Each registrant shall pay a non-refundable shielding plan review fee of sixty two dollars and fifty cents per x-ray control upon submission of any shielding plan. A shielding plan acceptance shall not be issued until payment of the review fee.

2.3.3 Vendor Application Fee. Each vendor shall pay a non-refundable application fee of sixty two-dollars and fifty cents upon submission of the initial Business Registration Approval Request form. A vendor registration approval shall not be issued until payment of the application fee.

2.3.4 Out-of-State Facility Application Fee. Any person proposing to bring an x-ray machine into the State, for any temporary use, shall pay a non-refundable application fee of sixty-two dollars and fifty cents upon submission of the initial Out-of-State Facility Form. An Out-of State Facility approval shall not be issued until payment of the application fee.

RHB 2.4 Facility Registration Approval.

2.4.1 Fixed Installation-Fixed Facility. Any facility planning to install an x-ray producing machine in a fixed location shall meet the provisions of this Subpart.

2.4.1.1 Prior to installation of any x-ray producing equipment, the facility where the installation will be shall submit to the Department the following information:

2.4.1.1.1 Facility Name, Location Address, and Mailing Address;

2.4.1.1.2 The name of the radiation safety officer, who is responsible for radiation protection, and the individual's qualifications to serve in such a capacity;

2.4.1.1.3 Type and make of x-ray equipment to be installed;

2.4.1.1.4 Operating procedures as required by RHB 4.2.3, 6.3.2, 7.5.7, or 8.8;

2.4.1.1.5 A training plan as required by RHB 4.2.2, 7.9.1, or 8.11;

2.4.1.1.6 A shielding plan, if required by RHB 4.4 or 8.12.2;

2.4.1.1.7 The name, address, and contact person of the company selling and installing the equipment. If more than one company is involved in the sale and/or installation, then the above information shall be provided for all companies involved.

2.4.1.2 Prior to installation of any x-ray producing equipment, the facility where the installation will be shall submit any application and shielding review fees as required by RHB 2.3.

2.4.1.3 Upon review of the above information, the Department shall issue a facility registration approval.

2.4.1.4 A facility shall not install or cause to be installed any x-ray producing equipment until the Department has issued a facility registration approval.

2.4.2 Fixed Installation-Mobile Facility. Any facility planning to install an x-ray producing machine in a fixed location of a mobile facility shall meet the provisions of this Subpart.

2.4.2.1 Prior to installation of any x-ray producing equipment, the facility where the equipment will be installed shall submit to the Department the following information:

2.4.2.1.1 Facility Name and Mailing Address where correspondence may be sent;

2.4.2.1.2 The name of the radiation safety officer, who is responsible for radiation protection, and the individual's qualifications to serve in such a capacity;

2.4.2.1.3 Type and make of x-ray equipment to be installed;

2.4.2.1.4 Operating procedures as required by RHB 4.2.3, 6.3.2, 7.5.7, or 8.8;

2.4.2.1.5 A training plan as required by RHB 4.2.2, 7.9.1, or 8.11;

2.4.2.1.6 An operating schedule, indicating when and where the equipment will be used;

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2.4.2.1.7 A shielding plan, as required by RHB 4.4 or 8.12.2;

2.4.2.1.8 The name, address, and contact person of the company selling and installing the equipment. If more than one company is involved in the sale or installation, then the above information shall be provided for all companies involved.

2.4.2.2 Prior to installation of any x-ray producing equipment, the facility where the equipment will be installed shall submit any application and shielding review fees as required by RHB 2.3.

2.4.2.3 Upon review of the above information, the Department shall issue a facility registration approval.

2.4.2.4 A facility shall not install or cause to be installed any x-ray producing equipment until the Department has issued a facility registration approval.

2.4.3 Mobile or Portable Equipment. Any facility acquiring or using mobile or portable x-ray producing equipment shall meet the provisions of this Subpart.

2.4.3.1 Prior to acquisition of any mobile x-ray producing equipment, the facility where the equipment will be used shall submit to the Department the following information:

2.4.3.1.1 Facility Name, Location Address and Mailing Address;

2.4.3.1.2 The name of the radiation safety officer, who is responsible for radiation protection, and the individual's qualifications to serve in such a capacity;

2.4.3.1.3 Type and make of x-ray equipment to be used;

2.4.3.1.4 Operating procedures as required by RHB 4.2.2, 6.3.2, 7.5.7, or 8.8;

2.4.3.1.5 A training plan as required by RHB 4.2.2, 7.9.1, or 8.11;

2.4.3.1.6 The name, address, and contact person of the company selling the equipment. If more than one company is involved in the sale, then the above information shall be provided for all companies involved.

2.4.3.2 Prior to acquisition of any mobile x-ray producing equipment, the facility where the equipment will be used shall submit any application and shielding review fees as required by RHB 2.3.

2.4.3.3 Upon review of the above information, the Department shall issue a facility registration approval.

2.4.3.4 A facility shall not use any x-ray producing equipment until the Department has issued a facility registration approval.

2.4.4 It shall be unlawful for any person to install x-ray producing equipment until the facility acquiring that equipment has received a facility registration approval from the Department.

RHB 2.5 Equipment Registration Requirements, Users of X-ray Machines.

2.5.1 Initial Equipment Registration. Every person who possesses an x-ray machine shall register the machine's control and tubes with the Department, within thirty days of the date of acquisition. Registration shall be made on Form DHEC 819, "Registration of X-Ray Producing Machines", furnished by the Department.

2.5.1.1 Upon registration of a control, the Department shall issue the facility a registration sticker to be placed on each control. The registration sticker shall be placed on the control panel in a clearly visible location.

2.5.1.2 When a control is removed from a facility, the facility shall remove the registration sticker.

2.5.1.3 A registration sticker on a control, displaying the facility's proper name, shall be considered indicative of a facility's and a control's registration status, as required to be confirmed by RHB 2.7.2.

2.5.2 Renewal of Equipment Registration. The Department shall provide an annual re-registration statement to all registrants. The re-registration statements shall be reviewed, corrected, signed, and returned to the Department within 30 days.

2.5.3 Report of Change. The registrant shall report to the Department, within thirty days, any changes of status affecting any x-ray machine or facility. Report of a change of status shall be made in writing, and forwarded to the Department.

2.5.4 Verification of Service Representative. Each registrant shall require any person furnishing x-ray machine servicing or services as described in this Part to provide evidence that he has been registered with the Department as a vendor in accordance with these regulations.

2.5.5 Leasing of Equipment. When a facility leases x-ray equipment, it shall be the facility's responsibility to register the equipment and to ensure that the equipment is maintained to meet these regulations.

RHB 2.6 Registration Requirements-Servicing and Services (VENDORS).

2.6.1 Each person who is engaged in the business of selling, leasing or installing or offering to sell, lease or install x-ray machines or machine components or is engaged in the business of furnishing or offering to furnish any equipment services in this State shall apply for registration as a vendor with the Department within thirty days following the effective dates of these regulations or thereafter prior to furnishing or offering to furnish any such services.

2.6.1.1 In-house personnel employed by a facility or corporation shall be exempt from the registration requirement, provided such personnel:

2.6.1.1.1 Shall meet the education, training, and experience requirements for the appropriate vendor Class and;

2.6.1.1.2 Shall exclusively service one facility or corporation.

2.6.1.2 Documentation of education, training, and experience for in-house service personnel shall be maintained by the facility or corporation and available for Department review.

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2.6.2 Application for vendor registration shall be completed on forms DHEC 824 and DHEC 825, furnished by the Department and shall contain all information required by the Department as indicated on the forms, and accompanying instructions. This information shall include:

2.6.2.1 The name, address, and telephone number of the individual or company to be registered, along with the owner(s) of the company;

2.6.2.2 The description of the services to be provided;

2.6.2.3 The name, training, and experience of each person who provides services;

2.6.2.4 The date of the application and the signature of the individual responsible for the company;

2.6.2.5 A sample of equipment performance test procedures and forms, if registering as a Class II vendor;

2.6.2.6 A sample of a shielding plan, if registering as a Class III, Class IV, Class VII, or Class IX vendor;

2.6.2.7 Any additional information the Department determines to be necessary for evaluation of the application for registration.

2.6.3 Each person applying for registration under this Part shall specify that he has read and understands the applicable requirements of these regulations.

2.6.4 For the purpose of this section, equipment services are:

2.6.4.1 Direct sale and transfer of radiation machines and machine components to end users;

2.6.4.2 Installation or servicing of radiation machines and associated radiation machine components;

2.6.4.3 Diagnostic radiographic facility and shielding design;

2.6.4.4 Diagnostic fluoroscopic facility and shielding design;

2.6.4.5 Diagnostic area radiation survey, e.g., shielding evaluation;

2.6.4.6 Radiation instrument calibration;

2.6.4.7 Therapeutic facility and shielding design, area radiation surveys, or calibration;

2.6.4.8 Personnel dosimeter services;

2.6.4.9 General health physics consulting, e.g., independent diagnostic radiation output measurements, dose analysis, design of safety programs and radiation safety training programs, non-healing arts facility and shielding design, and area radiation surveys; and

2.6.4.10 Such other equipment services which can affect compliance with these Regulations by a registrant, as determined by the Department.

2.6.5 Report of Change. The vendor shall notify the Department in writing, within thirty days of any changes that would render the information contained on DHEC Forms 824 and 825 no longer accurate. Changes shall include, but not be limited to, changes in employee's status, new employees, and in vendor Class or services.

2.6.6 Training and Educational Requirements for Equipment Services. Each person registered pursuant to RHB 2.6 shall be qualified by reason of education, training and experience to provide the service for which registration is requested. The following are minimum qualifications for specific types of services:

2.6.6.1 Class I - Sales of radiation machines and machine components to end users: The applicant must certify knowledge of familiarity with the rules and regulations which govern the possession, installation and use of radiation machines in South Carolina.

2.6.6.2 Class II - Installation and service of radiation machines and machine components including the making of diagnostic radiation output measurements to verify performance associated with the installation or service:

2.6.6.2.1 Manufacturer's equipment school for service, or equivalent training;

2.6.6.2.2 Maintenance and installation for the type of machine use (e.g., dental intraoral, medical diagnostic or medical fluoroscopic) or equivalent training;

2.6.6.2.3 Training in principles of radiation protection; and three to six months of experience in installation and service of radiation machines and machine components.

2.6.6.3 Class III - Diagnostic radiographic facility and shielding design:

2.6.6.3.1 Documented training in principles of radiation protection;

2.6.6.3.2 Documented training in shielding design; and

2.6.6.3.3 One year of experience in diagnostic radiographic facility and shielding design for the specific type of machine application.

2.6.6.4 Class IV - Diagnostic fluoroscopic facility and shielding design:

2.6.6.4.1 Documented training in principles of radiation protection;

2.6.6.4.2 Documented training in shielding design; and

2.6.6.4.3 One year of experience in diagnostic fluoroscopic facility and shielding design for the specific type of machine application.

2.6.6.5 Class V - Diagnostic area radiation survey, e.g., shielding evaluation:

2.6.6.5.1 Documented training in principles of radiation protection;

2.6.6.5.2 Documented training in shielding evaluation; and

2.6.6.5.3 One year of experience performing area radiation surveys.

2.6.6.6 Class VI - Radiation instrument calibration:

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2.6.6.6.1 The applicant must possess a current radioactive materials license if instrument calibration is done utilizing radioactive materials or registration authorizing radiation instrument calibration;

2.6.6.6.2 Training in principles of radiation protection;

2.6.6.6.3 Training in operation and calibration of radiation detection and measurement instrumentation;

2.6.6.6.4 One year experience in an instrument calibration laboratory;

2.6.6.6.5 Shall submit a description of the procedures that will be utilized in performing instrument calibrations.

2.6.6.7 Class VII - Therapeutic facility and shielding design, area radiation survey, or calibration:

2.6.6.7.1 Certification by the American Board of Radiology in therapeutic radiological physics, radiological physics, or x-ray and gamma ray physics, or certification by the American Board of Medical Physics in therapeutic radiological physics; or

2.6.6.7.2 Having the following minimum training and experience:

2.6.6.7.2.1 A Master's or a Doctoral degree in Physics, Biophysics, Radiological Physics, or Health Physics or Medical Physics; one year full-time training in therapeutic radiological physics;

2.6.6.7.2.2 One year full-time experience in a therapeutic facility where the individual's duties involve calibration and spot checks of a medical accelerator, and includes personal calibration and spot check of at least one machine;

2.6.6.7.3 Shall submit a description of the procedures that will be utilized in performing therapeutic calibrations including a list of all guides and references to be employed;

2.6.6.7.4 Shall submit a copy of all forms, reports and documents that will be supplied to registrants; and shall submit one sample of each specific type, e.g., therapy, accelerator.

2.6.6.8 Class VIII - Personnel dosimetry service: The applicant must hold current personnel dosimetry service accreditation from the National Voluntary Laboratory Accreditation Program (NVLAP) of the National Institute of Standards and Technology or use NVLAP accredited dosimetry.

2.6.6.9 Class IX - General health physics consulting, e.g., independent diagnostic radiation output measurements, dose analysis, design of safety programs, and radiation safety training programs, non-healing arts facility and shielding design, and area radiation surveys:

2.6.6.9.1 Baccalaureate degree in a physical science (e.g., physics, chemistry or radiologic science), engineering or related field and two years of progressive experience in medical or health physics; or

2.6.6.9.2 Baccalaureate degree in a physical science (e.g., physics, chemistry or radiologic science), engineering or related field and two years graduate training in medical or health physics; or



2.6.6.9.3 Certification by the American Board of Radiology in diagnostic radiological physics, therapeutic radiological physics, radiological physics, roentgen-ray and gamma ray physics, or x-ray and radium physics; certification by the American Board of Health Physics in comprehensive practice, or certification by the American Board of Medical Physics.

2.6.6.10 For the purpose of RHB 2.6, the required work experience may be gained while working for a manufacturer or while working under the direct supervision of a vendor registered in the particular class.

2.6.6.11 Any person registered prior to the effective date of this regulation as a vendor shall meet the education, training, and experience requirements of this Part no later than 24 months after the effective date of these regulations.

2.6.6.12 The Department shall initiate action to terminate the registration of any person who fails to comply with RHB 2.6.6.11.

2.6.7 Any branch office of a vendor shall be considered a separate entity and shall be registered separately pursuant to RHB 2.6.

2.6.8 Approval not Implied. No person, in any advertisement, shall refer to the fact that he or his facility is registered with the Department or that any activity under such registration has been approved by the Department.

#### RHB 2.7 Vendor Obligation.

2.7.1 Any person who sells, leases, transfers, lends, moves, assembles or installs x-ray machines in this State shall notify the Department within thirty days of:

2.7.1.1 The name and address of persons who have received these machines;

2.7.1.2 The manufacturer, the control and tube(s) model number, the control and tube(s) serial number of each radiation machine transferred; and

2.7.1.3 The date of transfer of each x-ray machine.

2.7.1.4 Notification to the Department shall be made on DHEC Form 823. A DHEC 823 form shall be submitted to the Department each month by Class I and Class II vendors regardless of whether x-ray equipment was sold that month.

2.7.2 No person shall make, sell, lease, transfer, lend, maintain, repair, assemble, reassemble, reinstall or install radiation machines or the supplies used in connection with such machines unless such supplies and equipment when properly placed in operation and used meet the requirements of these regulations. Each vendor shall ensure that the facility it is providing with services or supplies is registered with the Department prior to providing services or supplies.

2.7.3 Each vendor shall maintain records for review by the Department. These records shall include, at a minimum:

2.7.3.1 All information required by RHB 2.7;

2.7.3.2 A copy of the shielding plan, if one was required, and if provided by that vendor;

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2.7.3.3 Tests performed at the time of installation to ensure that the equipment complies with these regulations. A copy of these results shall be provided to the registrant at the time of installation;

2.7.3.4 Records of any routine maintenance, repair, alterations, or reassembly of x-ray equipment. Records of maintenance, repair, alterations, or reassemblies shall include the date that the service was performed and the legible signature of the person performing the service. A copy of these records shall be provided to the registrant at the time the service is provided;

2.7.3.5 Names of all employees and their dates of employment with the vendor. Records shall also be maintained of training provided to the employees during their term of employment.

2.7.3.6 Records of equipment performance testing, including data collected during the testing.

2.7.3.6.1 A copy of the equipment performance test must be provided to the facility either at the time of testing or within thirty days of the testing date.

2.7.3.6.2 The report of equipment performance testing shall include the testing of all items listed in Part IV, Appendix F, except as noted in the Appendix.

2.7.3.6.3 The equipment performance test record provided to the facility must clearly indicate all equipment parameters tested and must include a designation, such as "Pass/Fail" or "Compliant/Non-compliant", that is easily understandable by the facility. Use of any designation other than "Pass/Fail" or "Compliant/Non-compliant" shall be approved by the Department prior to use on equipment performance reports of testing.

2.7.3.6.4 The equipment performance test record shall include a summary of findings and recommendations for necessary improvements and/or corrective actions.

2.7.3.6.5 If any items listed in Part IV, Appendix F are indicated as "Fail" or "Non-compliant" on the equipment performance test record and the vendor performing the testing does not repair or re-calibrate the x-ray machine to "Pass" or "Compliant" status within ninety (90) days of the testing date, the vendor shall forward a copy of this report to the Department.

2.7.3.6.6 The record of equipment performance shall include the date that the testing was performed, the legible signature of the person performing the service, and the serial number, model number, and location of the equipment.

2.7.4 All records required by this Part shall be maintained by the vendor until their disposal is authorized by the Department. All records shall be accurate and factual.

2.7.5 Each vendor shall maintain sufficient calibrated and operable instruments to perform the testing appropriate to the class in which the vendor is registered. Instruments must be calibrated with sources consistent with the conditions under which they are used. Records shall be maintained of the calibrations performed on instrumentation used for testing. Instruments used shall be calibrated at the following frequencies:

2.7.5.1 Survey meters used for equipment performance testing and radiation area surveys shall be calibrated at intervals not to exceed twelve months and after each instrument servicing.

2.7.5.2 Ion chambers used for calibration of therapy units to meet the requirements of Part VI shall be calibrated at intervals not to exceed twenty four months and after each instrument servicing.

2.7.5.3 Other instruments used in performance testing of equipment, such as light meters, mAs meters, and kVp meters, shall be calibrated at intervals not to exceed twenty four months and after each instrument servicing.

**RHB 2.8 Out-of-state Facilities.**

2.8.1 No person shall bring any radiation machine into the state, for any temporary use, unless such person has given a written notice to the agency at least five working days before the machine is to be used in the state. The notice shall include the type of radiation machine; the nature, duration, and scope of use; and the exact location(s) where the radiation machine is to be used. If, for a specific case, the five working day period would impose an undue hardship on the person, he may, upon application to the agency, obtain permission to proceed sooner.

**RHB 2.9 Modification, Revocation, Termination of Registrants.**

2.9.1 The terms and conditions of all registrations are subject to amendment, revision, or modification and all registrations are subject to suspension or revocation by reason of:

2.9.1.1 Amendments to the Act;

2.9.1.2 Rules and regulations adopted pursuant to provisions of the Act; or

2.9.1.3 Orders issued by the Department.

2.9.2 Any registration may be revoked, suspended, or modified in whole or part:

2.9.2.1 For any material false statement in the application or in any statement of fact required by provisions of this part;

2.9.2.2 Because of any statement of fact, any report, record, inspection, or other means which would warrant the Department to refuse to grant a registration on original application; or

2.9.2.3 For violations of, or failure to observe any of the terms and conditions of the Act, the registration, these regulations, or any order of the Department.

2.9.3 An order of revocation may be appealed pursuant to applicable law, including S.C. Code Title 44, Chapter 1; and Title 1, Chapter 23.

2.9.4 Except in cases of wilfulness or those in which the public health, interest, or safety requires otherwise, prior to the institution of proceedings for modification, revocation, or suspension of a registrant, the Department shall:

2.9.4.1 Call to the attention of the registrant in writing the facts or conduct which may warrant these actions; and

2.9.4.2 Provide an opportunity for the registrant to demonstrate or achieve compliance with all regulations.

2.9.5 The Department may terminate a registration upon written request submitted by the registrant to the Department.

2.9.6 The provisions of this part shall apply to both registration of x-ray equipment and registration of x-ray services (vendors).

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### RHB 2.10 Annual Fees.

2.10.1 Any person issued or granted a registration for the possession and use of x-ray machine(s) shall pay an annual registration fee per machine tube. Vendors and out-of-state facilities shall pay an annual flat fee. The annual registration fee shall be due on January 15 of each year.

2.10.2 Persons failing to pay the fees required by RHB 2.10.1 by March 15 of that year shall also pay a penalty of Fifty Dollars. If the required fees are not paid by April 15 of that year, the registrant shall be notified by certified mail to be sent to his last known address that his registration is revoked, and that any activities permitted under the authority of the registration must cease immediately.

2.10.3 A registrant suspended for failure to pay the required fee under RHB 2.10.2 may be reinstated by the Department upon payment of the required fee, the penalty of Fifty Dollars and an additional penalty of One Hundred Dollars, if the registrant is otherwise in good standing and presents to the Department a satisfactory explanation for his failure to pay the required fee.

2.10.4 Payment of fees shall be made in accordance with the instructions of a "Statement of Fees Due" issued annually by the Department.

2.10.5 Fees required by RHB 2.10.1 for an x-ray machine, out-of-state facility, or vendor registration which is issued during a calendar year shall be prorated for the remainder of that year based on the date of issuance of the registration.

2.10.6 Schedule of Fees. The following fee schedule shall be used by the Department to determine the annual fee due:

Type of Equipment	Fee
Radiographic	\$100
Fluoroscopic	\$100
Combination Rad/Fluoro	\$200
Dental	\$62.50
Therapy	\$125
Diffraction	\$68.75
X-ray Fluorescence	\$68.75
Accelerator	\$125
Electron Microscope	\$37.50
Spectrograph	\$68.75
Cephalometer	\$100
Panoramic	\$50
Cabinet X-ray	\$93.75
CT Scanner and/or PET/CT Scanner	\$100
C-Arm Fluoroscopic	\$100
Mammography	(See RHB 5.6)
Stereotactic Mammography	\$100
Baggage Checker	\$68.75
Bone Densitometer	\$100
Lithotripter	\$100
Simulator	\$100
Other	\$100
Out-of-state Facilities	\$156.25
Vendors and Installers	\$156.25

PART III  
STANDARDS FOR PROTECTION AGAINST RADIATION

RHB 3.1 Purpose and Scope.

3.1.1 This Part establishes standards for protection against ionizing radiation resulting from activities conducted pursuant to registrations issued by the Department pursuant to these regulations.

3.1.2 The requirements of this Part are designed to control the receipt, possession, use, transfer, and disposal of sources of radiation by any registrant so the total dose to an individual, including doses resulting from all sources of radiation other than background radiation, does not exceed the standards for protection against radiation prescribed in this Part. However, nothing in this Part shall be construed as limiting actions that may be necessary to protect health and safety.

3.1.3 Except as specifically provided in other Parts of these regulations, this Part applies to persons registered by the Department to receive, possess, use, install, service, transfer, or dispose of sources of radiation. The limits in this Part do not apply to doses due to background radiation, to exposure of patients to radiation for the purpose of medical diagnosis or therapy, or to voluntary participation in medical research programs.

RHB 3.2 Implementation.

3.2.1 Any existing registration condition that is more restrictive than this Part remains in force until there is an amendment of the registration.

3.2.2 If a registration condition exempts a registrant from a provision of a previous Part III in effect on or before the effective date of these regulations, it also exempts the registrant from the corresponding provision of this Part III.

3.2.3 If a registration condition cites provisions of a previous Part III in effect prior to the effective date of these regulations, which do not correspond to any provisions of this Part, the registration condition remains in force until there is an amendment or renewal of the registration that modifies or removes this condition.

3.2.4 For determining the doses specified in this Part, a dose from x-rays up to 3 MeV may be assumed to be equivalent to the exposure measured by a properly calibrated appropriate instrument in air at or near the body surface in the region of the highest dose rate.

RHB 3.3 Authority and Responsibility for the Radiation Protection Programs.

3.3.1 Each registrant shall develop, document, and implement a radiation protection program sufficient to ensure compliance with the provisions of this Part. See RHB 3.18 for record keeping requirements relating to these programs.

3.3.2 The registrant shall use, to the extent practicable, procedures and engineering controls based upon sound radiation protection principles to achieve occupational doses and public doses that are as low as is reasonably achievable (ALARA).

3.3.3 The registrant shall, at intervals not to exceed 12 months, review the radiation protection program content and implementation.

3.3.4 The registrant shall provide the Radiation Safety Officer sufficient authority, organizational freedom, time, resources, and management prerogative, to:

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- 3.3.4.1 Identify radiation safety problems;
- 3.3.4.2 Initiate, recommend, or provide corrective actions;
- 3.3.4.3 Stop unsafe operations; and
- 3.3.4.4 Verify implementation of corrective actions.

3.3.5 The registrant shall establish either monthly or quarterly investigative limits to ensure individuals will not exceed annual occupational exposure limits.

### RHB 3.4 Occupational Dose Limits for Adults.

3.4.1 The registrant shall control the occupational dose to individual adults, except for planned special exposures pursuant to RHB 3.6, to the following dose limits:

3.4.1.1 An annual limit, which is the more limiting of:

3.4.1.1.1 The total effective dose equivalent being equal to 5 rem (0.05 Sv); or

3.4.1.1.2 The sum of the deep dose equivalent and the committed dose equivalent to any individual organ or tissue other than the lens of the eye being equal to 50 rem (0.5 Sv).

3.4.1.2 The annual limits to the lens of the eye, to the skin, and to the extremities which are:

3.4.1.2.1 An eye dose equivalent of 15 rem (0.15 Sv); and

3.4.1.2.2 A shallow dose equivalent of 50 rem (0.5 Sv) to the skin or to any extremity.

3.4.1.3 Any individual exceeding his/her annual occupational exposure limit shall not be exposed to additional occupational radiation for the remainder of the calendar year.

3.4.2 Doses received in excess of the annual limits, including doses received during accidents, emergencies, and planned special exposures, shall be subtracted from the limits for planned special exposures that the individual may receive during the current year and during the individual's lifetime. Dose limits for planned special exposures are provided in RHB 3.6.

3.4.3 The assigned deep dose equivalent and shallow dose equivalent shall be for the portion of the body receiving the highest exposure. The deep dose equivalent, eye dose equivalent and shallow dose equivalent may be assessed from surveys or other radiation measurements for the purpose of demonstrating compliance with the occupational dose limits, if the individual monitoring device was not in the region of highest potential exposure, or the results of individual monitoring are unavailable.

3.4.4 If an occupationally exposed adult is likely to receive in one year, from sources external to the body, a dose in excess of fifty percent (50%) of the limits in RHB 3.4.1, the registrant shall monitor all of the individual's occupationally received doses, and shall reduce the dose that an individual may be allowed to receive in the current year by the amount of occupational dose received while employed by any other person.

### RHB 3.5 Compliance with Requirements for Summation of External and Internal Doses.

If a registrant is also a radioactive material licensee of the Department, all regulations of Title A pertaining to dose limits are applicable. Nothing in this Part relieves a registrant from complying with Title A.

**RHB 3.6 Planned Special Exposures.**

A registrant may authorize an adult worker to receive doses in addition to and accounted for separately from the dose received under the limits specified in RHB 3.4 provided that each of the following conditions is satisfied:

3.6.1 The registrant authorizes a planned special exposure only in an exceptional situation when alternatives that might avoid the higher exposure are unavailable or impractical.

3.6.2 The registrant, and employer if the employer is not the registrant, specifically authorizes the planned special exposure, in writing, before the exposure occurs.

3.6.3 Before a planned special exposure, the registrant ensures that each individual involved is:

3.6.3.1 Informed of the purpose of the planned operation; and

3.6.3.2 Informed of the estimated doses and associated potential risks and specific radiation levels or other conditions that might be involved in performing the task; and

3.6.3.3 Instructed in the measures to be taken to keep the dose ALARA considering other risks that may be present.

3.6.4 Prior to permitting an individual to participate in a planned special exposure, the registrant ascertains prior doses as required by RHB 3.20 during the lifetime of the individual for each individual involved.

3.6.5 Subject to RHB 3.4.2, the registrant shall not authorize a planned special exposure that would cause an individual to receive a dose from all planned special exposures and all doses in excess of the limits to exceed:

3.6.5.1 The numerical values of any of the dose limits in RHB 3.4.1 in any year; and

3.6.5.2 Five times the annual dose limits in RHB 3.4.1 during the individual's lifetime.

3.6.6 The registrant maintains records of the conduct of a planned special exposure in accordance with RHB 3.21 and submits a written report in accordance with RHB 3.27.

3.6.7 The registrant records the best estimate of the dose resulting from the planned special exposure in the individual's record and informs the individual, in writing, of the dose within 30 days from the date of the planned special exposure. The dose from planned special exposures shall not be considered in controlling future occupational dose of the individual pursuant to RHB 3.4.2.

**RHB 3.7 Occupational Dose Limits for Minors.**

The annual occupational dose limits for minors are ten (10) percent of the annual occupational dose limits specified for adult workers in RHB 3.4.

**RHB 3.8 Dose to an Embryo/Fetus.**

3.8.1 The registrant shall ensure that the dose to an embryo/fetus during the entire pregnancy, due to occupational exposure of a declared pregnant woman, does not exceed 0.5 rem (5 mSv). See RHB 3.22 for record keeping requirements.

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3.8.2 The registrant shall make efforts to avoid substantial variation above a uniform monthly exposure rate to a declared pregnant woman so as to satisfy the limit in RHB 3.8.1.

3.8.3 The dose to an embryo/fetus shall be taken as the sum of:

3.8.3.1 The deep dose equivalent to the declared pregnant woman; and

3.8.3.2 The dose to the embryo/fetus from radionuclides in the embryo/fetus and radionuclides in the declared pregnant woman.

3.8.4 If by the time the woman declares pregnancy to the registrant, the dose to the embryo/fetus has exceeded 0.45 rem (4.5 mSv), the registrant shall be deemed to be in compliance with RHB 3.8.1 if the additional dose to the embryo/fetus does not exceed 0.05 rem (0.5 mSv) during the remainder of the pregnancy.

### RHB 3.9 Dose Limits for Individual Members of the Public.

3.9.1 Each registrant shall conduct operations so that:

3.9.1.1 The total effective dose equivalent to individual members of the public from the registered operation does not exceed 0.1 rem (1 mSv) in a year; and

3.9.1.2 The dose in any unrestricted area from external sources does not exceed 0.002 rem (0.02 mSv) in any one hour.

3.9.2 If the registrant permits members of the public to have access to controlled areas, the limits for members of the public continue to apply to those individuals.

3.9.3 A registrant, or an applicant for a registration may apply for prior Department authorization to operate up to an annual dose limit for an individual member of the public of 0.5 rem (5 mSv). This application shall include the following information:

3.9.3.1 Demonstration of the need for and the expected duration of operations in excess of the limit in RHB 3.9.1; and

3.9.3.2 The registrant's program to assess and control dose within the 0.5 rem (5 mSv) annual limit; and

3.9.3.3 The procedures to be followed to maintain the dose ALARA.

3.9.4 Retrofit shall not be required for locations within facilities where only radiation machines existed prior to the effective date of these Regulations, and met the previous requirements of 0.5 rem (5 mSv) in a year.

### RHB 3.10 Compliance with Dose Limits for Individual Members of the Public.

3.10.1 The registrant shall make or cause to be made surveys of radiation levels in unrestricted and controlled areas to demonstrate compliance with the dose limits for individual members of the public in RHB 3.9.

3.10.2 A registrant shall show compliance with the annual dose limit in RHB 3.9 by:



3.10.2.1 Demonstrating by measurement or calculation that the total effective dose equivalent to the individual likely to receive the highest dose from the registered operation does not exceed the annual dose limit; or

3.10.2.2 Demonstrating that if an individual were continually present in an unrestricted area, the dose from external sources would not exceed 0.002 rem (0.02 mSv) in an hour and 0.05 rem (0.5 mSv) in a year.

**RHB 3.11 Surveys.**

3.11.1 Each registrant shall make, or cause to be made, surveys that:

3.11.1.1 Are necessary for the registrant to comply with this Part; and

3.11.1.2 Are necessary under the circumstances to evaluate:

3.11.1.2.1 Radiation levels; and

3.11.1.2.2 The potential radiological hazards that could be present.

3.11.2 The registrant shall ensure that instruments and equipment used for quantitative radiation measurements, for example, dose rate and effluent monitoring, are calibrated at intervals not to exceed 12 months for the radiation measured.

**RHB 3.12 Personnel Monitoring.**

3.12.1 All personnel dosimeters, except for direct and indirect reading pocket ionization chambers and those dosimeters used to measure the dose to any extremity, that require processing to determine the radiation dose and that are used by registrants to comply with RHB 3.4, with other applicable provisions of these regulations, or with conditions specified in a registration shall be processed and evaluated by a dosimetry processor:

3.12.1.1 Holding current personnel dosimetry accreditation from the National Voluntary Laboratory Accreditation Program (NVLAP) of the National Institute of Standards and Technology; and

3.12.1.2 Approved in this accreditation process for the type of radiation or radiations included in the NVLAP program that most closely approximates the type of radiation or radiations for which the individual wearing the dosimeter is monitored.

3.12.2 Exposure of a personnel monitoring device to deceptively indicate a dose delivered to an individual is prohibited.

3.12.3 Conditions requiring Monitoring of Occupational Dose.

3.12.3.1 Personnel Monitoring (or other dosimeters approved by the Department) shall be:

3.12.3.1.1 Assigned to and worn only by one individual; and

3.12.3.1.2 When a lead apron is worn, the monitoring device shall be worn at the collar, outside the apron.

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3.12.3.1.3 If a personnel monitoring device is lost or damaged, the worker shall cease work immediately until a replacement badge is provided and the exposure is calculated for the time period from issuance to loss or damage of the badge. In the event a replacement badge is not available, the Radiation Safety Officer shall be contacted immediately to evaluate the probable radiation exposure to the worker until a replacement device is received.

3.12.3.2 Control badges are used to measure background radiation. They shall be stored away from the radiation area. Control badges are not to be worn as a personnel monitoring device. Ensure the control badge is returned with the lot of badges with which it was issued.

3.12.3.3 Upon Departmental approval, area monitors may be used in place of personnel monitoring devices.

3.12.4 Each registrant shall monitor exposures from sources of radiation at levels sufficient to demonstrate compliance with the occupational dose limits of this part. As a minimum:

3.12.4.1 Each registrant shall monitor occupational exposure to radiation and shall supply and require the use of individual monitoring devices by:

3.12.4.1.1 Adults likely to receive, in 1 year from sources external to the body, a dose in excess of 10 percent of the limits in RHB 3.4; and

3.12.4.1.2 Minors and declared pregnant women likely to receive, in 1 year from sources external to the body, a dose in excess of 10 percent of any of the applicable limits in RHB 3.7 or 3.8; and

3.12.4.1.3 Individuals entering a high or very high radiation area, including but not limited to, fluoroscopic procedures.

3.12.4.1.3.1 Personnel monitoring devices shall be worn appropriately by all personnel exposed to scatter radiation during any fluoroscopic procedure.

3.12.4.1.4 All employees who may be required to hold patients or films during x-ray examinations more than three times a quarter; or

3.12.4.1.5 All individuals who operate mobile or portable x-ray equipment. Operators of peripheral bone densitometers are exempt from this requirement.

3.12.4.1.6 Such other individuals as the Department deems necessary.

### 3.12.5 Determination of Dose.

3.12.5.1 When two monitoring devices are worn (one outside and one under the apron) the one outside will be considered the permanent record for the individual.

3.12.5.2 The Department may give consideration that an Effective Dose Equivalent be used as the permanent record provided that the registrant submits documentation outlining the reason for this request.

3.12.5.2.1 This documentation shall include, but not be limited to, written procedures detailing the protective apparel used and means to ensure that this apparel is worn at all times, the ALARA limits currently set, the review records of the Radiation Protection Program, and personnel monitoring records of the person(s) for whom the approval is being requested.

3.12.5.2.2 Such documentation shall be submitted to and approved by the Department prior to Effective Dose Equivalent being used as the permanent record.

3.12.5.2.3 The Department may immediately revoke this approval upon failure to observe any of the terms or conditions of this written approval or upon determination that a violation of Part III of these regulations has occurred.

3.12.5.3 Adjustments to the dose of permanent record shall be submitted to, and approved by, the Department prior to any changes to the record. Calculated doses from lost or damaged badges are excluded from this requirement.

3.12.6 When an individual who has been given responsibility that involves occupational exposure to x-rays declares that she is pregnant, the employer must, at her request, provide her with an additional personnel monitoring device to be worn on the trunk underneath the leaded apron, when such apron is worn. The fetal badge shall be processed and evaluated on a monthly basis, at a minimum.

#### RHB 3.13 Control of Access to High Radiation Areas.

3.13.1 The registrant shall ensure that each entrance or access point to a high radiation area has one or more of the following features:

3.13.1.1 A control device that, upon entry into the area, causes the level of radiation to be reduced below that level at which an individual might receive a deep dose equivalent of 0.1 rem (1 mSv) in 1 hour at 30 centimeters from the source of radiation from any surface that the radiation penetrates; or

3.13.1.2 A control device that energizes a conspicuous visible or audible alarm signal so that the individual entering the high radiation area and the supervisor of the activity are made aware of the entry; or

3.13.1.3 Entryways that are locked, except during periods when access to the areas is required, with positive control over each individual entry.

3.13.2 In place of the controls required by RHB 3.13.1 for a high radiation area, the registrant may substitute continuous direct or electronic surveillance that is capable of preventing unauthorized entry.

3.13.3 The registrant may apply to the Department for approval of alternative methods for controlling access to high radiation areas.

3.13.4 The registrant shall establish the controls required by RHB 3.13.1 and 3.13.3 in a way that does not prevent individuals from leaving a high radiation area.

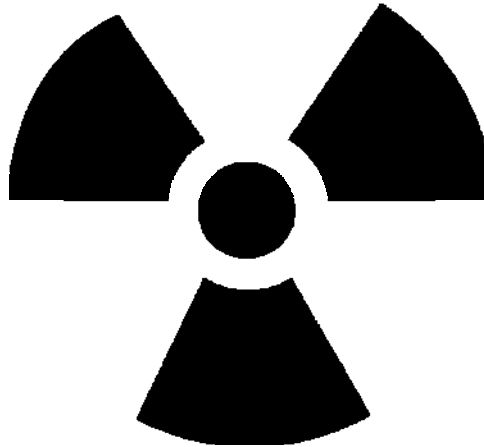
#### RHB 3.14 Control of Access to Very High Radiation Areas.

In addition to the requirements in RHB 3.13, the registrant shall institute measures to ensure that an individual is not able to gain unauthorized or inadvertent access to areas in which radiation levels could be encountered at 500 rad (5 Gy) or more in 1 hour at 1 meter from a source of radiation or any surface through which the radiation penetrates. This requirement does not apply to rooms or areas in which diagnostic x-ray systems are the only source of radiation.

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### RHB 3.15 Caution Signs.

3.15.1 The radiation symbols prescribed by this regulation shall be the conventional three-bladed design as shown. The cross-hatched area shall be magenta, purple, or black, and the background shall be yellow.



3.15.2 Additional Information on Signs and Labels. In addition to the contents of signs and labels prescribed in this Part, the registrant shall provide, on or near the required signs and labels, additional information, as appropriate, to make individuals aware of potential radiation exposures and to minimize the exposures.

### RHB 3.16 Posting Requirements.

3.16.1 Posting of Radiation Areas. The registrant shall post each radiation area with a conspicuous sign or signs bearing the radiation symbol and the words "CAUTION, RADIATION AREA."

3.16.2 Posting of High Radiation Areas. The registrant shall post each high radiation area with a conspicuous sign or signs bearing the radiation symbol and the words "CAUTION, HIGH RADIATION AREA" or "DANGER, HIGH RADIATION AREA."

3.16.3 Posting of Very High Radiation Areas. The registrant shall post each very high radiation area with a conspicuous sign or signs bearing the radiation symbol and words "GRAVE DANGER, VERY HIGH RADIATION AREA."

3.16.4 Exceptions to Posting Requirements. A registrant is not required to post caution signs in areas or rooms containing sources of radiation for periods of less than 8 hours, if each of the following conditions is met:

3.16.4.1 The sources of radiation are constantly attended during these periods by an individual who takes the precautions necessary to prevent the exposure of individuals to sources of radiation in excess of the limits established in this Part; and

3.16.4.2 The area or room is subject to the registrant's control.

### RHB 3.17 General Provisions for Records.

3.17.1 Each registrant shall use the SI units becquerel, gray, sievert and coulomb per kilogram, or the special units curie, rad, rem and roentgen, including multiples and subdivisions, and shall clearly indicate the units of all quantities on records required by this Part.

3.17.2 The registrant shall make a clear distinction among the quantities entered on the records required by this Part, such as, total effective dose equivalent, total organ dose equivalent, shallow dose equivalent, eye dose equivalent, deep dose equivalent, or committed effective dose equivalent.

3.17.3 Form of Records. Each record required by this Part shall be legible throughout the specified retention period. The record shall be the original or a reproduced copy or a microform, provided that the copy or microform is authenticated by authorized personnel and that the microform is capable of producing a clear copy throughout the required retention period. The record may also be stored in electronic media with the capability for producing legible, accurate, and complete records during the required retention period. Records, such as letters, drawings, and specifications, shall include all pertinent information, such as stamps, initials, and signatures. The registrant shall maintain adequate safeguards against tampering with and loss of records.

**RHB 3.18 Records of Radiation Protection Programs.**

3.18.1 Each registrant shall maintain records of the radiation protection program, including:

3.18.1.1 The provisions of the program; and

3.18.1.2 Audits and other reviews of program content and implementation.

3.18.2 The registrant shall retain the records required by (RHB 3.18.1.1) until the Department terminates each pertinent registration requiring the record. The registrant shall retain the records required by RHB 3.18.1.2 for 5 years after the record is made.

**RHB 3.19 Records of Surveys.**

3.19.1 Each registrant shall maintain records showing the results of surveys and calibrations required by RHB 3.11. The registrant shall retain these records for 5 years after the record is made.

3.19.2 The registrant shall retain records of the results of surveys to determine the dose from external sources of radiation used, in the absence of or in combination with individual monitoring data, in the assessment of individual dose equivalents for 5 years after the record is made.

**RHB 3.20 Determination and Records of Prior Occupational Dose.**

3.20.1 For each individual who may enter the registrant's restricted or controlled area and is likely to receive, in a year, an occupational dose requiring monitoring pursuant to RHB 3.12, the registrant shall:

3.20.1.1 Determine the occupational radiation dose received during the current year; and

3.20.1.2 Attempt to obtain the records of lifetime cumulative occupational radiation dose.

3.20.2 Prior to permitting an individual to participate in a planned special exposure, the registrant shall determine:

3.20.2.1 The internal and external doses from all previous planned special exposures; and

3.20.2.2 All doses in excess of the limits, including doses received during accidents and emergencies, received during the lifetime of the individual; and

3.20.2.3 All lifetime cumulative occupational radiation dose.

3.20.3 In complying with the requirements of RHB 3.20.1, a registrant may:

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3.20.3.1 Accept, as a record of the occupational dose that the individual received during the current year, a written signed statement from the individual, or from the individual's most recent employer for work involving radiation exposure, that discloses the nature and the amount of any occupational dose that the individual received during the current year; and

3.20.3.2 Accept, as the record of lifetime cumulative radiation dose, an up-to-date record, signed by the individual and countersigned by an appropriate official of the most recent employer for work involving radiation exposure, or the individual's current employer, if the individual is not employed by the registrant; and

3.20.3.3 Obtain reports of the individual's dose equivalent from the most recent employer for work involving radiation exposure, or the individual's current employer, if the individual is not employed by the registrant, by telephone, telegram, facsimile, or letter. The registrant shall request a written verification of the dose data if the authenticity of the transmitted report cannot be established.

3.20.4 The registrant shall record the exposure history, as required by RHB 3.20.1, on a clear and legible record, of all the information required. The record shall show each period in which the individual received occupational exposure to radiation or radioactive material and shall be signed by the individual who received the exposure. For each period for which the registrant obtains reports, the registrant shall use the dose shown in the report in preparing the record. For any period in which the registrant does not obtain a report, the registrant shall place a notation on the record indicating the periods of time for which data are not available.

3.20.5 If the registrant is unable to obtain a complete record of an individual's current and previously accumulated occupational dose, the registrant shall assume:

3.20.5.1 In establishing administrative controls pursuant to RHB 3.4.4 for the current year, that the allowable dose limit for the individual is reduced by 1.25 rem (12.5 mSv) for each quarter for which records were unavailable and the individual was engaged in activities that could have resulted in occupational radiation exposure; and

3.20.5.2 That the individual is not available for planned special exposures.

3.20.6 The registrant shall retain the records of prior occupational dose and exposure history until the Department terminates each pertinent registration requiring this record. The registrant shall retain records for 5 years after the record is made.

### RHB 3.21 Records of Planned Special Exposures.

3.21.1 For each use of the provisions of RHB 3.6 for planned special exposures, the registrant shall maintain records that describe:

3.21.1.1 The exceptional circumstances requiring the use of a planned special exposure; and

3.21.1.2 The name of the management official who authorized the planned special exposure and a copy of the signed authorization; and

3.21.1.3 What actions were necessary; and

3.21.1.4 Why the actions were necessary; and

3.21.1.5 What precautions were taken to assure that doses were maintained ALARA; and

3.21.1.6 What individual and collective doses were expected to result; and

3.21.1.7 The doses actually received in the planned special exposure.

3.21.2 The registrant shall retain the records until the Department terminates each pertinent registration requiring these records.

**RHB 3.22 Records of Individual Monitoring Results.**

3.22.1 Record Keeping Requirement. Each registrant shall maintain records of doses received by all individuals for whom monitoring was required pursuant to RHB 3.12, and records of doses received during planned special exposures, accidents, and emergency conditions. Assessments of dose equivalent and records made using units in effect before the effective date of this Part need not be changed. These records shall include the deep dose equivalent to the whole body, eye dose equivalent, shallow dose equivalent to the skin, and shallow dose equivalent to the extremities.

3.22.2 Record Keeping Frequency. The registrant shall make entries of the records specified in RHB 3.22.1 at intervals not to exceed 1 year.

3.22.3 Record Keeping Format. The registrant shall maintain the records specified in RHB 3.22.1 .

3.22.4 The registrant shall maintain the records of dose to an embryo/fetus with the records of dose to the declared pregnant woman. The declaration of pregnancy, including the estimated date of conception, shall also be kept on file, but may be maintained separately from the dose records.

3.22.5 The registrant shall retain each required form or record until the Department terminates each pertinent registration requiring the record.

**RHB 3.23 Records of Dose to Individual Members of the Public.**

3.23.1 Each registrant shall maintain records sufficient to demonstrate compliance with the dose limit for individual members of the public in RHB 3.10.

3.23.2 The registrant shall retain the records required by RHB 3.23.1 until the Department terminates each pertinent registration requiring the record.

**RHB 3.24 Notification of Incidents.**

3.24.1 Immediate Notification. Notwithstanding other requirements for notification, each registrant shall immediately report each event involving a source of radiation possessed by the registrant that may have caused or threatens to cause an individual to receive:

3.24.1.1 A total effective dose equivalent of 25 rem (0.25 Sv) or more; or

3.24.1.2 An eye dose equivalent of 75 rem (0.75 Sv) or more; or

3.24.1.3 A shallow dose equivalent to the skin or extremities or a total organ dose equivalent of 250 rad (2.5 Gy) or more; or

3.24.2 Twenty-Four Hour Notification. Each registrant shall, within 24 hours of discovery of the event, report to the Department each event that may have caused, or threatens to cause, an individual to receive, in a period of 24 hours:

3.24.2.1 A total effective dose equivalent exceeding 5 rem (0.05 Sv); or

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3.24.2.2 An eye dose equivalent exceeding 15 rem (0.15 Sv); or

3.24.2.3 A shallow dose equivalent to the skin or extremities or a total organ dose equivalent exceeding 50 rem (0.5 Sv).

3.24.3 The registrant shall prepare each report filed with the Department pursuant to this Part so that names of individuals who have received exposure to sources of radiation are stated in a separate and detachable portion of the report.

3.24.4 Registrants shall make the reports required by this Part to the Department by telephone, telegram, mailgram, or facsimile to the Department.

3.24.5 The provisions of this Part do not apply to doses that result from planned special exposures, provided such doses are within the limits for planned special exposures and are reported pursuant to RHB 3.26.

### RHB 3.25 Reports of Exposures and Radiation Levels Exceeding the Limits.

3.25.1 In addition to the notification required by RHB 3.24, each registrant shall submit a written report within 30 days after learning of any of the following occurrences:

3.25.1.1 Any incident for which notification is required by RHB 3.24;

3.25.1.2 Doses in excess of any of the following:

3.25.1.2.1 The occupational dose limits for adults in RHB 3.4;

3.25.1.2.2 The occupational dose limits for a minor in RHB 3.7;

3.25.1.2.3 The limits for an embryo/fetus of a declared pregnant woman in RHB 3.8;

or

3.25.1.2.4 The limits for an individual member of the public in RHB 3.9.

3.25.2 The written report shall include the following:

3.25.2.1 A description of the extent of exposure of individuals to radiation, including, as appropriate:

3.25.2.1.1 Estimates of each individual's dose; and

3.25.2.1.2 The levels of radiation involved; and

3.25.2.1.3 The cause of the elevated exposures or dose rates; and

3.25.2.1.4 Corrective steps taken or planned to ensure against a recurrence, including the schedule for achieving conformance with applicable limits.

3.25.2.2 For each individual exposed: the name, Social Security account number, and date of birth. With respect to the limit for the embryo/fetus in RHB 3.8, the identifying information shall be that of the declared pregnant woman. The report shall be prepared so that this information is stated in a separate and detachable portion of the report.



3.25.3 Reports made by registrants in response to the requirements of this Part shall be addressed to the department as specified in RHB 1.12.

**RHB 3.26 Reports of Planned Special Exposures.**

The registrant shall submit a written report to the Department within 30 days following any planned special exposure conducted in accordance with RHB 3.6, informing the Department that a planned special exposure was conducted and indicating the date the planned special exposure occurred and the information required by RHB 3.21.

**RHB 3.27 Reports of Individual Monitoring.**

The Department may require by registration condition, or order pursuant to RHB 1.6.1, annual reports of the results of individual monitoring carried out by the registrant for each individual for whom monitoring was required by RHB 3.12.

**RHB 3.28 Notifications and Reports to Individuals.**

3.28.1 Requirements for notification and reports to individuals of exposure to radiation are specified in RHB10.4.

3.28.2 When a registrant is required pursuant to RHB 3.25 to report to the Department any exposure of an individual to radiation, the registrant shall also notify the individual. Such notice shall be transmitted at a time not later than the transmittal to the Department, and shall comply with the provisions of RHB10.4.

**RHB 3.29 Storage and Control of Radiation Sources.**

3.29.1 Security of Stored Sources of Radiation. The registrant shall secure from unauthorized removal or access sources of radiation that are stored in controlled or unrestricted areas.

3.29.2 Control of Sources of Radiation not in Storage. The registrant shall maintain control of radiation machines that are in a controlled or unrestricted area and that are not in storage.

**RHB 3.30 Reports of Stolen, Lost, or Missing Radiation Sources.**

3.30.1 Telephone Reports. Each registrant shall report to the Department by telephone, immediately after its occurrence becomes known to the registrant, a stolen, lost, or missing radiation machine.

3.30.2 Written Reports. Each registrant required to make a report pursuant to RHB 3.30.1 shall, within 30 days after making the telephone report, make a written report to the Department setting forth the following information:

3.30.2.1 A description of the registered source of radiation involved, including the manufacturer, model and serial number, type and maximum energy of radiation emitted;

3.30.2.2 A description of the circumstances under which the loss or theft occurred; and

3.30.2.3 A statement of disposition, or probable disposition, of the registered source of radiation involved; and

3.30.2.4 Actions that have been taken, or will be taken, to recover the source of radiation; and

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3.30.2.5 Procedures or measures that have been, or will be, adopted to ensure against a recurrence of the loss or theft of registered sources of radiation.

3.30.3 Subsequent to filing the written report, the registrant shall also report additional substantive information on the loss or theft within 30 days after the registrant learns of such information.

PART IV  
USE OF X-RAY IN THE HEALTH PROFESSIONS

RHB 4.1 Scope.

This part establishes requirements for which a registrant is responsible, for use of x-ray equipment by or under the supervision of an individual authorized by and licensed in accordance with State statutes to engage in the healing arts or veterinary medicine.

RHB 4.2 General Safety Provisions.

4.2.1 An x-ray system which does not meet the provisions of these regulations shall not be operated for diagnostic or therapeutic purposes if so directed by the Department.

4.2.2 The registrant shall assure that all X-ray machines under his control are operated only by a radiologic technologist possessing a current, valid certificate from the South Carolina Radiation Quality Standards Association, or a licensed practitioner. For the purpose of this Part, a radiologic technologist is defined as a person who is a limited practice radiographer, radiographer, podiatric limited practice radiographer or limited chest radiographer certified by the American Registry of Radiologic Technologists or who is certified by the South Carolina Radiation Quality Standards Association or who has obtained a certificate acceptable to the South Carolina Radiation Quality Standards Association. A person who applies ionizing radiation to humans or performs x-ray exam setups, including, but not limited to, patient positioning and technique selection shall be considered a radiologic technologist.

4.2.2.1 No person other than a licensed practitioner or a radiologic technologist possessing a current, valid certificate from the South Carolina Radiation Quality Standards Association shall use equipment emitting ionizing radiation on humans for diagnostic purposes.

4.2.2.2 No person shall employ or designate as a radiologic technologist a person who does not hold a current, valid certificate issued by the South Carolina Radiation Quality Standards Association.

4.2.2.3 No person holding a certificate issued by the South Carolina Radiation Quality Standards Association shall use equipment emitting ionizing radiation on humans for diagnostic purposes unless under the direction and supervision of a licensed practitioner and unless so directed by prescription of a licensed practitioner.

4.2.2.4 No person who is not certified by the South Carolina Radiation Quality Standards Association shall take, use, or exhibit the title of "limited practice radiographer", "podiatric limited practice radiographer", "limited chest radiographer", or "radiographer" or any other title, sign, display, or declaration that tends to lead the public to believe that the person is authorized to apply ionizing radiation on humans for diagnostic purposes.

4.2.2.5 A student enrolled in and attending a school or college of medicine, osteopathy, chiropractic, podiatry, radiologic technology, or a curriculum approved by the South Carolina Radiation Quality Standards Association, or a resident in an approved graduate education program of medicine, osteopathy, chiropractic, or podiatry may apply ionizing radiation to humans without a certificate from the South Carolina Radiation Quality Standards Association, as long as the student or resident is under the supervision of a licensed practitioner or direct supervision of a certified radiologic technologist appropriately trained to supervise the specific procedure.

4.2.2.6 The registrant shall display each operator's current certificate in public view, not obstructed by any barrier, equipment, or other object. The registrant may also post a notice to the public that South Carolina Radiation Quality Standards Association certificates are available for review upon request.

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4.2.2.7 The registrant shall ensure that each operator has received facility specific training to include the equipment and operating procedures as required by RHB 4.2.3. Documentation of this training for each operator shall be made available for Departmental review.

4.2.2.8 Dentists and their auxiliaries who meet the requirements of the South Carolina Dental Practice Act are exempt from the requirements of 4.2.2.1 through 4.2.2.6.

4.2.3 The registrant shall create and make available to x-ray operators written operating procedures, including any restrictions of the operating techniques required for the proper operation of the particular x-ray system. The registrant shall adhere to the operating procedures in all respects. After initial review and approval of the procedures by the Department, any substantive changes must be submitted in writing to the Department for review and approval prior to implementation of the change. The operator shall be able to demonstrate familiarity and competence with these procedures. Documentation must be maintained, indicating that the operator has read and agrees to adhere to the operating procedures. The procedures shall include, but not be limited to:

4.2.3.1 Policies and procedures for Patient Holding;

4.2.3.2 Policies and procedures for Pregnant Workers; NRC Regulatory Guide 8.13, "Instruction Concerning Prenatal Radiation Exposure", should be used for guidance concerning pregnant workers;

4.2.3.3 Policies and procedures regarding the use of Gonadal shielding; (Registrants using x-ray equipment for veterinary purposes are exempt from this requirement.)

4.2.3.4 Policies and procedures for Pregnant patients; (Registrants using x-ray equipment for veterinary purposes are exempt from this requirement.)

4.2.3.5 Policies and procedures for Personnel Monitoring;

4.2.3.6 Procedures for training New Employees;

4.2.3.7 Methods for Quality Assurance.

4.2.4 X-ray producing machines and associated equipment shall be maintained in such a condition to ensure that the patient and staff are not exposed to radiation unnecessarily.

4.2.5 If an x-ray system is identified as not being in compliance with the provisions of these regulations and cannot meet the regulations, or if the registrant is unwilling to make corrections, and if that system is accessible for use, it shall be rendered inoperable (i.e. dismantle the x-ray source from the source support assembly) if so ordered by the Department.

4.2.6 In the vicinity of each diagnostic x-ray system's control panel, a chart shall be provided which specifies for all examinations performed with that system, the following information:

4.2.6.1 Patient's body part and anatomical size, or body part thickness or age (for pediatrics), versus technique factors to be used;

4.2.6.2 Source to image receptor distance (SID) to be used (except for dental intra-oral radiography); and

4.2.6.3 If an AEC system is operated in a manual mode, the technique chart shall specify the requirements of RHB 4.2.6.1 and RHB 4.2.6.2.

4.2.6.4 The technique chart shall accurately reflect techniques currently in use at the facility.

4.2.7 A sign shall be posted so as to be easily seen by the patient to the effect that if there is a pregnancy or the possibility of a pregnancy, the physician shall be notified.

4.2.8 The effectiveness of protective equipment and apparel shall not be impaired. Lead aprons and gloves shall be checked at least annually for cracks and holes that could compromise the radiation protection it provides. This testing shall be documented. Records of this testing shall be kept two years, or until the next Department inspection, whichever is later.

4.2.9 Except for patients who cannot be moved out of the room, only the staff and ancillary personnel required for the medical procedure or training shall be in the room during the radiographic exposure other than the patient being examined.

4.2.9.1 All individuals shall be positioned such that no part of the body will be struck by the useful beam, unless protected by not less than 0.5 mm lead equivalent material.

4.2.9.2 The x-ray operator, other staff, and ancillary persons shall be protected from the direct scatter radiation by protective aprons or whole body protective barriers of not less than 0.5 mm lead equivalent material.

4.2.9.3 When feasible, persons who cannot be removed from the room shall be protected from the direct scatter radiation by whole body protective barriers of 0.5 mm lead equivalent or shall be so positioned that the nearest portion of the body is at least 2 meters from both the tube head and the nearest edge of the image receptor.

4.2.9.4 When a portion of the body of any staff or ancillary personnel is potentially subjected to stray radiation which could result in that individual receiving one quarter of the maximum permissible dose as defined in RHB 3.4 of these regulations, additional protective devices may be required by the Department.

4.2.10 Gonadal shielding of not less than 0.5 mm lead equivalent material shall be used for patients who have not passed the reproductive age during radiographic procedures in which the gonads are in the direct beam, except in cases where the gonadal shielding would interfere with the diagnostic image desired.

4.2.11 Individuals shall not be exposed to the useful beam of electronically produced ionizing radiation except for healing arts purposes, and unless such exposure has been authorized by a licensed practitioner of the healing arts. This provision specifically prohibits deliberate exposure for the following purposes:

4.2.11.1 Exposure of an individual for training, demonstration or other purposes unless there are also healing arts requirements and proper prescription has been provided. Demonstrations or training on new x-ray equipment must be performed with proper protection of the observers and operator(s). Phantoms, not humans, must be used for demonstrations and training.

4.2.11.2 Healing arts screening. Any person proposing to conduct a healing arts screening program shall not initiate such a program without prior approval of the Department. When requesting such approval, that person shall submit the information outlined in Appendix A of this part. If any information submitted to the Department becomes invalid or outdated, the Department shall be notified within 15 days. Approval to conduct a healing arts screening program shall be renewed on an annual basis if deemed necessary by the Department.

4.2.12 When a patient or film must be provided with auxiliary support during a radiation exposure:

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4.2.12.1 Mechanical holding devices shall be used when the technique permits.

4.2.12.2 Written operating procedures, as required in RHB 4.2.3.1, shall indicate the requirements for selecting a holder, and the procedure the holder shall follow.

4.2.12.3 The human holder shall be instructed in personal radiation safety and shall be protected as required by 4.2.9.

4.2.12.4 No person shall be used routinely to hold patients or film. All requirements of RHB 4.2.14 and 4.2.15 apply.

4.2.12.5 In those cases where the patient must hold the film, except during intraoral examinations, any portion of the body other than the area of clinical interest struck by the useful beam shall be protected by not less than 0.5 mm lead equivalent material.

4.2.12.6 When practical, a pregnant female should not be used to hold film or patients.

4.2.12.7 Each facility shall have leaded aprons and gloves available in sufficient numbers to provide protection to all personnel who are involved in x-ray operations who are not otherwise shielded.

4.2.13 Procedures and auxiliary equipment designed to minimize patient and personnel exposure commensurate with the needed diagnostic information shall be used.

4.2.13.1 The speed of the screen and film combinations used shall be the fastest speed consistent with the diagnostic objective of the examinations. Film cassettes without intensifying screens shall not be used for any routine diagnostic radiological imaging. The film cassettes shall provide good contact between the intensifying screens and the film.

4.2.13.2 The radiation exposure to the patient shall be the minimum exposure required to produce images of good diagnostic quality. Appendix D provides patient exposures that are typical of good practices. These should be used by the registrant in evaluating patient exposure.

4.2.13.3 Portable or mobile x-ray equipment shall be used only for examinations where it is impractical to transfer the patient(s) to a stationary x-ray installation. Portable or mobile dental equipment shall be exempt from this regulation.

4.2.13.4 Radiologic technologists performing fluoroscopy as a localizing procedure shall be monitored by the supervising radiologist who is personally and immediately available.

### 4.2.14 Personnel Monitoring.

4.2.14.1 All persons who are associated with the operation of an X-ray system are subject to the occupational exposure limits and the requirements for the determination of the doses which are stated in RHB 3.4. In addition, the following requirements are made:

4.2.14.1.1 When protective clothing or devices are worn on portions of the body and a personnel monitoring device(s) is required, at least one such device shall be utilized as follows:

4.2.14.1.2 When an apron is worn, and one monitoring device is worn, the monitoring device shall be worn at the collar outside of the apron. If more than one monitoring device is worn, the devices shall be worn in accordance with RHB 3.12.5.

4.2.14.1.3 The dose to the whole body based on the maximum dose attributed to any one critical organ shall be recorded in the reports required by RHB 3.22. If more than one device is used and a record is made of the data, each dose shall be identified with the area where the device was worn on the body.

4.2.14.2 Exposure of a personnel monitoring device to falsely indicate a dose delivered to an individual is prohibited.

4.2.14.3 When an individual who has been given responsibility that involves occupational exposure to x-rays declares that she is pregnant, the employer must, at her request, provide her with an additional personnel monitoring device to be worn on the trunk underneath the leaded apron, when such apron is worn.

4.2.14.4 All employees who may be required to hold patients or films during x-ray examinations more than three times a quarter shall wear a personnel monitoring device.

#### 4.2.15 X-ray Log.

4.2.15.1 Each facility shall keep an x-ray log containing the patient's name; the type of examination, given by title as denoted on the technique chart; identification of the operator performing the examination; and the dates the examinations were performed.

4.2.15.2 When the patient or film must be provided with human auxiliary support, the name of the human holder shall be recorded.

4.2.15.3 When the examination is performed using any type of fluoroscopy, the logbook shall include a record of the amount of time that fluoroscopy was performed or the number of times that the cumulative timer was reset. The fluoroscopy time is not required to be recorded for radiation therapy simulation units or instrument guided radiation therapy units.

4.2.15.4 X-ray log records shall be maintained for two years or until the next Department inspection, whichever is later.

4.2.15.5 Logs are not required for dental or veterinary x-ray equipment.

#### 4.2.16 Quality Assurance.

4.2.16.1 Each registrant covered under RHB 4.5 through 4.12 must have "Equipment Performance Tests" performed on each x-ray unit. The registrant is required to meet the minimum performance criteria and test frequency. Facilities utilizing x-ray equipment for teaching or demonstration purposes only are exempt from this Part. Appendix F provides the required minimum performance criteria that must be tested. Equipment performance tests results must include numerical data. Items found to be non-compliant during such testing shall be corrected within sixty (60) days of receipt of the report. Records showing the test results and the correction of any non-compliant items found must be retained for five years. Equipment performance tests are to be performed:

4.2.16.1.1 At the time installation at all facilities, including veterinary facilities; or

4.2.16.1.2 Within thirty (30) days of installation, provided that the manufacturer's specified testing is performed at the time of installation and before patient use.

4.2.16.1.3 At the following specified intervals thereafter:

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4.2.16.1.3.1 Dental x-ray equipment, including cephalometric units, shall be tested every two years.

4.2.16.1.3.2 All medical x-ray equipment, including fluoroscopic, computerized tomography, and radiation therapy simulators, shall be tested annually. Self calibrating bone densitometry systems are exempt from this requirement. Mammography units shall meet the requirements of Part V.

4.2.16.1.3.3 Veterinary facilities are required to have equipment performance tests performed at the time of installation, every five years, and at any time the Department deems necessary.

4.2.16.1.4 On any unit expected to remain at a facility for more than thirty (30) calendar days. If a unit is expected to remain at a facility for less than thirty (30) calendar days, the manufacturer's specified testing must be performed, at a minimum, prior to patient use. Mammography units shall meet the requirements of Part V.

4.2.16.2 The darkroom shall be light tight to the dark adapted eye and use proper safelighting such that a film exposed to x-radiation sufficient to produce an optical density from 1 to 2 when processed shall not suffer an increase in density greater than 0.1 when exposed in the darkroom for 2 minutes with all safelights on. If used, daylight film handling boxes shall preclude fogging of the film.

4.2.16.3 If grids are used between the patient and the image receptor to decrease scatter to the film and improve contrast the grid shall:

4.2.16.3.1 Be positioned properly, i.e., tube side facing the right direction, and grid centered to the central ray;

4.2.16.3.2 If of the focused type, be of the proper focal distance for the SID's being used.

### 4.2.16.4 Repeat Analysis.

4.2.16.4.1 Each registrant shall establish a repeat analysis program. An analysis of repeats shall include, at a minimum, the overall repeat rate and the causes for the repeats.

4.2.16.4.2 The repeat analysis shall be done quarterly at facilities that produce less than 250 radiographs per month.

4.2.16.4.3 Facilities that produce 250 or more radiographs per month shall do a repeat analysis weekly or after 1000 radiographs, whichever comes first.

4.2.16.4.4 A different repeat analysis frequency may be granted upon application to the Department, provided that the requested frequency allows adequate monitoring, as determined by the Department.

4.2.16.4.5 Facilities with a single operator may document reasons for repeats on the patient log in lieu of a repeat analysis rate.

4.2.16.4.6 Registrants possessing dental or veterinary x-ray equipment are exempt from this requirement.



4.2.17 X-ray Film Processing. Each installation using a radiographic x-ray system and using analog imaging systems (radiographic film) shall have available suitable equipment for handling and processing radiographic film in accordance with the following provisions:

4.2.17.1 Manual Film Processing Systems.

4.2.17.1.1 Processing tanks shall be constructed of mechanically rigid, corrosion resistant material.

4.2.17.1.2 A dedicated darkroom thermometer shall be used. The thermometer shall be used to adjust the film processing time according to solution temperature.

4.2.17.1.3 A dedicated darkroom timer with an adjustable preset function shall be used. The timer shall be used to adjust film processing time according to solution temperature.

4.2.17.1.4 Documentation shall be kept of the frequency at which film processing chemicals are changed. At a minimum, the interval as recommended by the chemical manufacturer shall be used.

4.2.17.1.5 Safelight. If a safelight is used, it shall be adequate for the film speed(s) and the darkroom operating procedures used to prevent fogging of unprocessed film.

4.2.17.1.6 The temperature of solutions in the tanks shall be maintained within the range of 60° F to 80° F (16° C to 27° C). Film shall be developed in accordance with the time-temperature relationships recommended by the film manufacturer, or, in the absence of such recommendations, with the following time-temperature chart:

**TIME TEMPERATURE CHART**

Thermometer Reading (Degrees)		Minimum Developing Time (Minutes)
°C	°F	
26.7	80	2
26.1	79	2
25.6	78	2 ½
25.0	77	2 ½
24.4	76	3
23.9	75	3
23.3	74	3 ½
22.8	73	3 ½
22.2	72	4
21.7	71	4
21.1	70	4 ½
20.6	69	4 ½
20.0	68	5
19.4	67	5
18.9	66	5 ½
18.3	65	6
17.8	64	6 ½
17.2	63	7
16.7	62	8
16.1	61	8 ½
15.6	60	9 ½

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4.2.17.1.7 Radiographs shall not be "sight developed."

4.2.17.2 Automated Processors and Other Closed Processing Systems.

4.2.17.2.1 The temperature of film processing chemicals shall be appropriate for the type of film(s) being processed at the film transport speed selected.

4.2.17.2.2 The film processing chemicals used and their replenishing rate (if applicable) shall be appropriate for the film transport speed selected.

4.2.17.2.3 Documentation shall be kept of the frequency at which film processing chemicals are changed. At a minimum, the interval recommended by the chemical manufacturer shall be used.

4.2.17.2.4 Safelight. If a safelight is used, it shall be adequate for the film speed(s) and the darkroom operating procedures used to prevent fogging of unprocessed film.

4.2.17.2.5 Films shall be developed in accordance with the time-temperature relationships recommended by the film manufacturer, or, in the absence of such recommendations, the film shall be developed using the following chart:

Developer Temperature		Minimum Immersion Time *
°C	°F	Seconds
35	95	20
34	94	21
34	93	22
33	92	23
33	91	24
32	90	25

\*Immersion time only, no crossover time included.

4.2.17.2.6 The specified developer temperature shall be available.

4.2.17.2.7 The sensitometric performance of an automatic processor shall be equivalent to other operating processor models set up to meet the above developer temperature and immersion time specifications. This is determined by processing identically exposed film through each model and comparing the results.

4.2.17.2.8 Densitometric and sensitometric performance testing.

4.2.17.2.8.1 Densitometric and sensitometric performance testing of the processor is required of facilities that process more than 250 films per week.

4.2.17.2.8.2 Control limits shall be established for each parameter monitored. Provisions for correctable action shall be undertaken whenever the pre-established control limits are exceeded.

4.2.17.2.8.3 Documentation of testing must be maintained for at least two years or until the next Department inspection, whichever is later.

4.2.17.2.8.4 Facilities processing more than 250 films per week are required to perform this testing on each day that examinations are performed before any clinical films are processed that day.

4.2.17.2.8.5 Facilities that operate 24 hours per day must perform the required testing once each day.

4.2.17.2.8.6 Registrants possessing dental or veterinary x-ray equipment are exempt from this requirement.

4.2.17.2.9 Records of processor maintenance shall be kept for at least two years or until the next Department inspection, whichever is later.

#### 4.2.17.3 Other Requirements.

4.2.17.3.1 Film pass boxes, if provided, shall be so constructed as to exclude light when film is placed in or removed from the boxes, and shall incorporate adequate shielding to prevent exposure of undeveloped film to stray radiation.

4.2.17.3.2 Film shall be stored in a cool, dry place and shall be protected from exposure to stray radiation. Film in open packages shall be stored in a light tight container.

4.2.17.3.3 Film cassettes and intensifying screens shall be inspected in accordance with the facility's approved procedures and shall be cleaned and replaced as necessary to best assure radiographs of good diagnostic quality. Documentation of this periodic inspection and cleaning must be maintained for at least two years or until the next Department inspection, whichever is later.

4.2.17.4 Outdated x-ray film shall not be used for human diagnostic radiographs, unless the film has been stored in accordance with the manufacturer's recommendations and a sample of the film passes a sensitometric test for normal ranges of base fog and speed.

4.2.17.5 Film developing solutions shall be prepared in accordance with the directions given by the manufacturer, and shall be maintained in strength by replenishment or renewal so that full development is accomplished within the time specified by the manufacturer.

#### RHB 4.3 General Requirements for all Diagnostic X-ray Systems.

All diagnostic x-ray systems shall meet the following requirements.

4.3.1 Warning Label. The control panel containing the main power switch shall bear the warning statement: "WARNING: This x-ray unit may be dangerous to patient and operator unless safe exposure factors and operating instructions are observed."

4.3.1.1 The warning label shall be legible and its view unobstructed.

4.3.2 Battery Charge Indicator. On battery-powered generators, visual means shall be provided on the control panel to indicate that the battery is adequately charged.

4.3.3 Leakage Radiation from the Diagnostic Source Assembly. The leakage radiation from the diagnostic source assembly measured at a distance of 1 meter in any direction from the source shall not exceed 100 milliRoentgen in 1 hour when the X-ray tube is operated at its maximum technique factors.

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4.3.4 Radiation from Capacitor Energy Storage Equipment in Standby Status. Radiation emitted from the X-ray tube when the exposure switch or timer is not activated shall not exceed a rate of 2 milliRoentgen per hour at five (5) centimeters from any accessible surface of the diagnostic source assembly, with the beam limiting device fully open.

4.3.5 Beam Quality. The half-value layer (HVL) of the useful beam for a given x-ray tube potential shall not be less than the values shown in Table I. If it is necessary to determine such half-value layer at an X-ray tube potential that is not listed in Table I, linear interpolation or extrapolation may be made.

TABLE I

Design Operating Range (kVp)	Measured Potential (kVp)	Specified Dental Systems (mm Al)	All other Diagnostic (mm Al)
30 to 50	30	N/A	0.3
	40	N/A	0.4
	50	1.5	0.5
51 to 70	51	1.5	1.2
	60	1.5	1.3
	70	1.5	1.5
Above 70	71	2.1	2.1
	80	2.3	2.3
	90	2.5	2.5
	100	2.7	2.7
	110	3.0	3.0
	120	3.2	3.2
	130	3.5	3.5
	140	3.8	3.8
	150	4.1	4.1

4.3.5.1 Beryllium window tubes shall have a minimum of 0.5 mm aluminum equivalent filtration permanently mounted in the useful beam.

4.3.5.2 For capacitor energy storage equipment, compliance with RHB 4.3.5 shall be determined with the maximum quantity of charge per exposure.

4.3.5.3 The required minimal half-value layer of the useful beam shall include the filtration contributed by all materials which are permanently between the source and the patient.

4.3.5.4 All intraoral dental units manufactured after December 1, 1980 shall have at least 1.5 millimeters aluminum equivalent filtration permanently installed in the useful beam.

4.3.6 Filtration Controls. For x-ray systems which have variable kVp and variable filtration for the useful beam, a device shall link the kVp selector with the filter(s) and shall prevent an exposure unless the minimum amount of filtration required by RHB 4.3.5 is in the useful beam for the given kVp which has been selected.

4.3.7 Multiple Tubes. Where two or more radiographic tubes are controlled by one exposure switch, the tube or tubes which have been selected shall be clearly indicated prior to initiation of the exposure.

4.3.7.1 This indication shall be on both the X-ray control and at or near the tube housing assembly.

4.3.8 Mechanical Support of Tube Head. The tube housing assembly supports shall be adjusted such that the tube housing assembly will remain stable during an exposure unless the tube housing movement is a designed function of the X-ray system.

4.3.9 Technique Indicators.

4.3.9.1 The technique factors, whether manual or automatic exposure control, shall be indicated before the exposure begins. This requirement may be met by permanent markings on equipment having fixed technique factors.

4.3.9.2 Technique factors shall be visible from the operator's position except in the case of spot films made by the fluoroscopist.

4.3.9.3 The x-ray control shall provide visual indication of the production of x-rays.

4.3.9.4 X-ray systems utilizing arbitrary number or letter designators for kVp, time and milliAmperage shall be accompanied by a chart giving the value of physical factors for each arbitrary designator.

4.3.10 Focal Spot Indication. The focal spot shall be denoted in such a manner and area as to be easily seen on the tube housing.

4.3.11 Mechanical Timers. Use of mechanical timers is prohibited.

4.3.12 Imaging Systems other than Screen/Film. The provisions of this part are in addition to, and not in substitution for, applicable provisions of these regulations.

4.3.12.1 Users of digital imaging acquisition systems shall follow protocol established by the manufacturer of the digital imaging acquisition system.

4.3.12.2 The manufacturer's current operating manual shall be available for Department review.

4.3.13 Other Installations. The Department may impose by rule, regulation, or order any requirements deemed appropriate or necessary to ensure appropriate and proper operation of any diagnostic x-ray system.

RHB 4.4 Shielding.

4.4.1 Prior to construction of a new facility, modification, or renovation of an existing x-ray facility, or replacement of an x-ray machine, the floor plans and equipment arrangement shall be reviewed by a Class III, Class IV, Class VII, or Class IX vendor and submitted to the Department for review and acceptance.

4.4.2 A shielding plan shall also be required when a facility replaces an existing x-ray machine control or generator or when operating procedures at the facility change to an extent so as to render the original shielding plan inaccurate.

4.4.3 X-ray equipment shall not be installed or operated before a shielding plan for the unit has been reviewed and accepted by the Department.

4.4.4 Shielding Plan Requirements.

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4.4.4.1 The registrant shall submit plans and a report, including any recommendations and all basic assumptions used, from the vendor to the Department. Applicable fees shall be submitted in accordance with RHB 2.3.2. In order for the Department to accept the submitted shielding plan, the information listed in Appendix B shall be submitted. The design considerations listed in Appendix C shall be followed.

4.4.4.2 Each installation shall be provided with such primary barriers and secondary barriers as are necessary to assure compliance with RHB 3.3, RHB 3.4 and RHB 3.5. The requirement shall be deemed to be met if the thickness of such barriers is equivalent to the thickness as computed in accordance with the National Council of Radiation Protection and Measurements, Report Number 147, "Structural Shielding Design for Medical X-ray Imaging Facilities;" the National Council of Radiation Protection and Measurements, Report Number 145, "Radiation Protection in Dentistry;" or an equivalent reference.

4.4.4.3 All wall, floor, and ceiling areas exposed to the useful beam shall have primary barriers. Primary barriers in walls shall extend to a minimum height of 2.13 meters above the floor.

4.4.4.4 Secondary barriers shall be provided in all wall, floor and ceiling areas not having primary barriers.

4.4.4.5 The operator's station at the control shall be behind a protective barrier either in a separate room, in a protected booth, or behind a shield which will intercept the useful beam and any radiation that has been scattered only once.

4.4.4.6 Mobile and portable x-ray systems used in conjunction with a permanently installed cassette holder shall be considered a stationary radiographic system and shall meet the requirements for such an installation.

4.4.5 The acceptance of such plans shall not preclude the requirement of additional modifications should a subsequent analysis of operating conditions indicate the possibility of an individual receiving a dose in excess of the limits prescribed in Part III of these regulations.

4.4.6 Area Surveys. The registrant shall have a radiation area survey performed by a Class V, Class VII, or Class IX vendor, registered with the Department.

4.4.6.1 The survey shall be submitted to the Department for review and shall include a scale drawing of the room indicating the composition of the walls, floor, ceiling, windows, and doors, and the placement of the x-ray equipment, including the table, control, and vertical cassette holder, if provided. The location and composition of the film bin shall also be included. The survey shall include an evaluation of the adequacy of each protective barrier, the operator's location, and the film storage area, if appropriate.

4.4.6.2 A copy of the radiation area survey shall be submitted to the Department within thirty days after installation of the x-ray equipment.

4.4.6.3 Any deviation from the accepted shielding plan shall be documented and evaluated for adequacy.

4.4.6.4 The Department may determine that a survey is not required for some installations.

4.4.7 "As-built" Drawings.

4.4.7.1 Within 30 days after construction and installation are complete, the facility shall ensure that "as-built" drawings are submitted to the Department. The drawings must indicate the composition of the walls, floor, ceiling, windows and doors. The drawings must also indicate the placement of the x-ray equipment, including the table, control, and vertical cassette holder, if provided, as well as the location and composition of the film bin, if present.

4.4.7.2 Any deviation from the accepted shielding plan shall be documented and evaluated for adequacy by a Class III, Class IV, Class VII, or Class IX vendor.

4.4.8 Bone Density and Mammography Installations.

4.4.8.1 Prior to installation of new or replacement equipment:

4.4.8.1.1 A shielding plan shall be submitted to the Department for review and acceptance or;

4.4.8.1.2 A written request shall be made by a Class V, Class VII, or Class IX vendor registered with the Department to perform a post-install survey in lieu of a shielding plan.

4.4.8.1.3 Applicable fee shall be submitted in accordance with RHB 2.3.2.

4.4.9. After installation of a radiation machine, the facility shall maintain for inspection by the Department:

4.4.9.1 A copy of the shielding plan, as required by RHB 4.4;

4.4.9.2 A copy of the Department's acceptance letter; and

4.4.9.3 A copy of the area survey or "as-built" drawing, as required by RHB 4.4.6 or 4.4.7.

RHB 4.5 Dental Radiographic Installations.

In addition to the provisions of RHB 4.3 and 4.4, the requirements of RHB 4.5 apply to x-ray equipment and associated facilities used for dental radiography.

4.5.1 Source to Skin Distance (SSD). X-ray systems designed for use with an intraoral image receptor shall be provided with means to limit the source-to-skin distance, to not less than eighteen (18) centimeters.

4.5.2 Field Limitation. Radiographic systems designed for use with an intraoral image receptor shall be provided with means to limit the x-ray field such that:

4.5.2.1 The x-ray field at the minimum SSD shall be containable in a circle having a diameter of no more than 7 centimeters.

4.5.2.2 An open ended Position Indication Device (PID) shall be used, and shall provide the same degree of protection as the housing. Pointed PIDs shall not be used.

4.5.2.3 The operator shall position the end of the PID as close as practicable to the skin of the patient.

4.5.3 Timers. Means shall be provided to terminate the exposure at a preset time interval, preset product of current and time, a preset number of pulses, or a preset radiation exposure to the image receptor. In addition:

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4.5.3.1 It shall not be possible to make an exposure when the timer is set to a "zero" or "off" position if either position is provided.

4.5.3.2 Termination of an exposure shall cause automatic resetting of the timer to its initial setting or to "Zero".

4.5.3.3 Timer reproducibility. The average exposure period ( $\bar{T}$ ) shall be greater than or equal to 5 times the maximum exposure period ( $T_{max}$ ) minus the minimum exposure period ( $T_{min}$ ) when 4 timer tests are performed:  $\bar{T} \geq 5 (T_{max} - T_{min})$ .

### 4.5.4 X-ray Control.

4.5.4.1 An x-ray control shall be incorporated into each x-ray system such that an exposure can be terminated by the operator at any time, except for exposures of one-half (1/2) second or less.

4.5.4.2 Each x-ray control shall be located in such a way as to meet the following requirements:

4.5.4.2.1 Stationary x-ray systems installed after July 1, 1993, shall have the x-ray control permanently mounted in a protected area, so that the operator is required to remain in that protected area during the entire exposure; and

4.5.4.2.2 For stationary x-ray systems without a protected area and installed before July 1, 1993, the exposure switch shall be such that the operator shall stand at least six feet away from the tube housing and out of the direct beam.

4.5.4.2.3 For mobile and portable x-ray systems, the exposure switch shall meet the requirements of 4.5.4.2.2.

4.5.4.2.4 Visual and/or audible indication, observable at or from the operator's protected position, shall be provided whenever x-rays are initiated and terminated.

4.5.5 Exposure Reproducibility. The coefficient of variation shall not exceed 0.05 when all selectable technique factors are held constant. This requirement shall be deemed to have been met if, when 4 exposures are made at identical technique factors, the value of the average exposure ( $\bar{E}$ ) is greater than or equal to 5 times the maximum exposure ( $E_{max}$ ) minus the minimum exposure ( $E_{min}$ ):  $\bar{E} \geq 5 (E_{max} - E_{min})$ .

4.5.6 Linearity. When the equipment allows a choice of x-ray tube current settings and is operated on a power supply as specified by the manufacturer for any fixed x-ray tube potential within the maximum rating, the average ratios of exposure to the indicated milliAmpere-seconds product obtained at any two tube current settings shall not differ by more than 0.10 times their sum:  $[X1 - X2] < 0.10 (X1 + X2)$  where X1 and X2 are the average mR/mAs values obtained at each of the two tube current settings.

4.5.7 Accuracy. Deviation of technique factors from indicated values shall not exceed the limits specified for that system by the manufacturer. In the absence of manufacturer's specifications the deviation shall not exceed 10% of the indicated value.

4.5.8 kVp Limitations. Dental x-ray machines with a nominal fixed kVp of less than 50 kVp shall not be used to make diagnostic dental radiographs of humans.



4.5.9 Multiple Tubes. Where two or more radiographic tubes are controlled by one exposure switch, the tube or tubes which have been selected shall be clearly indicated prior to initiation of the exposure. This indication shall be both on the X-ray control and at or near the tube housing which has been selected.

4.5.10 Mechanical Support of Tube Head. The tube housing assembly supports shall be adjusted so that the tube housing assembly will remain stable during an exposure unless the tube housing movement is a designed function of the X-ray system.

4.5.11 Structural Shielding.

4.5.11.1 Dental rooms containing x-ray machines shall be provided with primary and secondary barriers for all areas struck by the useful beam, as required by RHB 4.4.4.2.

4.5.11.2 When dental x-ray units are installed in adjacent rooms or areas, protective barriers shall be provided between the rooms or areas.

4.5.11.3 Pass throughs between adjacent areas shall be securely interlocked in a functional, permanent manner.

4.5.12 Operating Procedures.

4.5.12.1 Neither the dentist nor his assistant shall hold patients or films during exposure, nor shall any individual be regularly used for this service.

4.5.12.2 The tube housing and the PID shall not be hand-held during an exposure.

4.5.12.3 Dental fluoroscopy without image intensification shall not be used.

4.5.12.4 Each patient undergoing dental radiography shall be draped with a protective apron of not less than 0.25 millimeter lead equivalent to cover the gonadal area unless the patient refuses.

4.5.12.5 Only persons required for the radiographic procedure shall be in the radiographic room during exposures.

RHB 4.6 Extraoral Dental Radiographic Installations.

4.6.1 Cephalometric Installations.

4.6.1.1 All provisions of RHB 4.4 and 4.7 apply.

4.6.1.2 The radiographic field shall be restricted to the area of the image receptor.

4.6.2 Panoramic Installations

4.6.2.1 All provisions of RHB 4.5 apply, except 4.5.1 and 4.5.2.1.

4.6.3 Dental CT.

4.6.3.1 Where applicable, all provisions of RHB 4.11 apply.

4.6.4 Other Installations. The Department may impose by rule, regulation, or order any requirements deemed appropriate or necessary to ensure appropriate and proper operation of any extraoral dental radiographic installation .

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### RHB 4.7 Medical Radiographic Systems.

The requirements of this Part apply to x-ray equipment and associated facilities used for radiography with stationary radiographic systems other than intraoral dental, fluoroscopic, computed tomography (CT), mammography or veterinary medical systems.

4.7.1 Stationary General Purpose Units. In addition to the other provisions of this part, all stationary general purpose units must also meet the following requirements:

4.7.1.1 Means shall be provided for independent stepless adjustment of at least two dimensions of the x-ray field.

4.7.1.2 Means shall be provided to indicate when the axis of the x-ray beam is perpendicular to the plane of the image receptor.

4.7.1.3 Means shall be provided for visually defining the perimeter of the X-ray field. The total misalignment of the edges of the visually defined field with the respective edges of the X-ray field along either the length or width of the visually defined field shall not exceed two percent (2%) of the distance from the source to the center of the visually defined field when the surface upon which it appears is perpendicular to the axis of the X-ray beam.

4.7.1.4 The beam limiting device shall indicate numerically the field size in the plane of the image receptor to which it is adjusted.

4.7.1.5 Indication of field size dimensions and SID's used shall be specified in inches and/or centimeters on the collimator. The indications on the collimator shall be such that aperture adjustments result in X-ray field dimensions in the plane of the image receptor which correspond to those of the image receptor to within two percent (2%) of the SID when the beam axis is perpendicular to the plane of the image receptor.

4.7.1.6 The beam limiting device shall be provided with SID scales that reflect the actual SID(s) used for radiographic procedures.

4.7.1.7 Means shall be provided to align the center of the x-ray field with the center of the image receptor to within 2 percent of the SID.

4.7.2 X-ray Systems Designed for One Image Receptor Size. Radiographic equipment designed for only one image receptor size at a fixed SID shall be provided with means to limit the field at the plane of the image receptor, and to align the center of the x-ray field with the center of the image receptor to within two percent (2%) of the SID, or shall be provided with means to both size and align the x-ray field such that the x-ray field at the plane of the image receptor does not extend beyond any edge of the image receptor.

4.7.3 Special Purpose X-ray Systems. In addition to the other provisions of this Part, all special purpose x-ray systems shall also meet the following requirements:

4.7.3.1 Means shall be provided to limit the x-ray field in the plane of the image receptor such that the x-ray field does not exceed each dimension of the image receptor by more than 2% of the SID when the axis of the x-ray beam is perpendicular to the plane of the image receptor.

4.7.3.2 Means shall be provided to align the center of the X-ray field with the center of the image receptor to within two percent (2%) of the SID, or means shall be provided to both size and align the x-ray field such that the x-ray field at the plane of the image receptor does not extend beyond any edge of the image receptor. Compliance shall be determined with the axis of the x-ray beam perpendicular to the plane of the image receptor.

4.7.3.3 The above RHB 4.7.3.1 and 4.7.3.2 may be met with a system that meets the requirements for a general purpose X-ray system as specified in Part RHB 4.7.3, above or, when alignment means are also provided, may be met with either:

4.7.3.3.1 An assortment of removable, fixed aperture, beam limiting devices sufficient to meet the requirement for each combination of image receptor size and SID for which the unit is designed. Each such device shall have clear and permanent markings to indicate the image receptor size and SID for which it is designed; or

4.7.3.3.2 A beam limiting device having multiple fixed apertures sufficient to meet the requirement for each combination of image receptor size and SID for which the unit is designed. Permanent, clearly legible markings shall indicate the image receptor size and SID for which each aperture is designed and shall indicate which aperture is in position for use.

4.7.4 Radiation Exposure Control Devices.

4.7.4.1 Timers. Means shall be provided to terminate the exposure at a preset time interval, preset product of current and time, a preset number of pulses, or a preset radiation exposure to the image receptor. In addition, it shall not be possible to make an exposure when the timer is set to a zero or off position if either position is provided.

4.7.4.2 X-ray Control.

4.7.4.2.1 An x-ray control shall be incorporated into each x-ray system such that an exposure can be terminated by the operator at any time ("deadman" switch) except for exposures of one-half (1/2) second or less, or during serial radiography when means shall be provided to permit completion of any single exposure of the series in process.

4.7.4.2.2 Stationary x-ray systems shall have the x-ray control permanently mounted in a protected area so that the operator is required to remain in that protected area during the entire exposure.

4.7.4.2.3 The X-ray control shall provide visual indication observable at or from the operator protected position whenever X-rays are produced. In addition, a signal audible to the operator shall indicate that the exposure has terminated.

4.7.4.2.4 The X-ray control shall be so placed that the operator can view the patient during any exposure and still stand in a protected area.

4.7.4.2.5 Automatic Exposure Controls. When an automatic exposure control is provided:

4.7.4.2.5.1 Indication shall be made on the control panel when this mode of operation is selected;

4.7.4.2.5.2 If the x-ray tube potential is equal to or greater than 50 kVp, the minimum exposure time for field emission equipment rated for pulsed operation shall be equal to or less than a time interval equivalent to 2 pulses;

4.7.4.2.5.3 The minimum exposure time for all equipment other than that specified in 4.7.4.2.5.2 shall be equal to or less than one-sixtieth (1/60) second or a time interval required to deliver 5 mAs, whichever is greater;

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4.7.4.2.5.4 Either the product of peak x-ray tube potential, current, and exposure time shall be limited to not more than 60 kW per exposure, or the product of x-ray tube current and exposure time shall be limited to not more than 600 mAs per exposure except that, when the x-ray tube potential is less than 50 kVp, the product of x-ray tube current and exposure time shall be limited to not more than 2000 mAs per exposure; and

4.7.4.2.5.5 A visible signal shall indicate when an exposure has been terminated at the limits required by 4.7.4.2.5.4, and manual resetting shall be required before further automatically timed exposures can be made.

4.7.4.2.6 Timer Reproducibility. With a timer setting of 0.5 second or less, the average exposure period ( $\bar{T}$ ) shall be greater than or equal to 5 times the maximum exposure period ( $T_{max}$ ) minus the minimum exposure period ( $T_{min}$ ) when 4 timer tests are performed:  $\bar{T} \geq 5 (T_{max} - T_{min})$ .

4.7.5 Exposure Reproducibility. The coefficient of variation of exposure shall not exceed 0.05 when all selectable technique factors are held constant. This requirement shall be deemed to have been met if, when four exposures are made at identical technique factors, the value of the average exposure ( $\bar{E}$ ) is greater than or equal to 5 times the maximum exposure ( $E_{max}$ ) minus the minimum exposure ( $E_{min}$ ):  $\bar{E} \geq 5 (E_{max} - E_{min})$ .

4.7.6 Accuracy. Deviation of technique factors from indicated values shall not exceed the limits specified for that system by its manufacturer. In the absence of manufacturer's specifications, the deviation shall not exceed 10% of the indicated value.

4.7.7 Linearity. The following requirements apply when the equipment is operated on a power supply as specified by the manufacturer for any fixed x-ray tube potential within the range of 40 percent to 100 percent of the maximum rated.

4.7.7.1 Equipment having independent selection of x-ray tube current (mA). The average ratios of exposure to the indicated milliAmpere-seconds product (C/kg/mAs (or mR/mAs)) obtained at any tube current settings shall not differ by more than 0.10 times their sum. This is:  $[X1-X2] < 0.10 (X1+X2)$ ; where X1 and X2 are the average C/kg/mAs (or mR/mAs) values obtained at any two tube current settings.

4.7.7.2 Equipment having a combined x-ray tube current-exposure time product (mAs) selector, but not a separate tube current (mA) selector. The average ratios of exposure to the indicated milliAmpere-seconds product (C/kg/mAs (or mR/mAs)) obtained at any two mAs selector settings shall not differ by more than 0.10 times their sum. This is:  $[X1-X2] < 0.10 (X1+X2)$ ; where X1 and X2 are the average C/kg/mAs (or mR/mAs) values obtained at any two mAs selector settings.

4.7.7.3 Measuring Compliance. Determination of compliance shall be based on 4 exposures, at each of the two settings. The two settings may include any two focal spot sizes provided that neither focal spot size is equal to or less than 0.45 millimeter, in which case the two settings shall be restricted to the same focal spot size. For purposes of this requirement, focal spot size is the nominal focal spot size specified by the x-ray tube manufacturer.

### 4.7.8 Light Localization.

4.7.8.1 When a light localizer is used to define the x-ray field, it shall provide an average illumination of not less than 15 footcandles at 100 centimeters or at the maximum SID, whichever is less. The average illumination shall be based upon measurements made in the approximate center of each quadrant of the light field. Radiation therapy simulation systems manufactured on and after May 27, 1980, are exempt from this requirement.

4.7.8.2 Exemptions to RHB 4.7.8.1 shall be granted if the registrant demonstrates to the Department that their equipment is unable to meet these regulations, and the Department determines that patient safety or image quality is not compromised.

4.7.9 Certified Systems. In addition to the requirements of these rules, the registrant shall not make, nor cause to be made, any modification of components or installations of components certified pursuant to US Food and Drug Administration Regulation 21 CFR 1020 "Performance Standards for Ionizing Radiation Emitting Products" in any manner that could cause the installations or the components to fail to meet the requirements of the applicable parts of the standards specified in 21 CFR 1020, except where a variance has been granted by the Director, Center for Devices and Radiological Health, Food and Drug Administration.

4.7.10 Maintenance Schedule. On all equipment containing components certified pursuant to US Food and Drug Administration Regulation CFR 1020 "Performance Standards for Ionizing Radiation Emitting Products" the registrant shall perform, or cause to be performed, the schedule of maintenance provided by the manufacturer pursuant to 21 CFR 1020.30(h)(1)(ii). A log book of such maintenance shall be maintained for inspection by the Department.

4.7.11 SID Indication. Means shall be provided to indicate the SID. SIDs shall be indicated in inches and/or centimeters, and shall be indicated to within 2 percent.

4.7.12 Positive Beam Limitation. For units having an operable positive beam limitation (PBL) system, the following requirements must be met:

4.7.12.1 Neither the length nor width of the x-ray field shall differ from the corresponding image receptor dimensions by more than 3 percent of the SID; and

4.7.12.2 The sum of the length and width differences, without regard to sign, shall not exceed 4 percent of the SID.

4.7.12.3 The positive beam limitation system shall be capable of operation, at the discretion of the operator, such that the size of the field may be made smaller than the size of the image receptor through stepless adjustment of the field size. The minimum field size at an SID of 100 centimeters shall be equal to or less than 5 centimeters by 5 centimeters.

4.7.12.4 The positive beam limitation system shall be designed such that if a change in image receptor does not cause automatic return to positive beam limitation function and any change of image receptor size or SID must cause the automatic return.

4.7.12.5 PBL compliance shall be determined with the beam axis perpendicular to the plane of the image receptor. Compliance shall be determined no sooner than 5 seconds after insertion of the image receptor.

4.7.13 The useful beam shall be limited to the area of clinical interest. This shall be deemed to have been met if a positive beam limiting device has been properly used or if evidence of collimation has been shown on at least three sides or three corners of the film, (for example, projections from the shutters of the collimator, cone cutting at the corners, or borders at the film's edge).

4.7.14 Minimum Field Size. The minimum field size at an SID of 100 cm shall be equal to or less than 5 centimeters by 5 centimeters.

RHB 4.8 Mobile Radiographic Equipment.

4.8.1 All provisions of RHB 4.7.4 through 4.7.15 apply, except 4.7.12.

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4.8.2 Means shall be provided for independent stepless adjustment of at least two dimensions of the x-ray field.

4.8.3 Means shall be provided to indicate when the axis of the x-ray beam is perpendicular to the plane of the image receptor.

4.8.4 Means shall be provided for visually defining the perimeter of the X-ray field. The total misalignment of the edges of the visually defined field with the respective edges of the X-ray field along either the length or width of the visually defined field shall not exceed two percent (2%) of the distance from the source to the center of the visually defined field when the surface upon which it appears is perpendicular to the axis of the X-ray beam.

4.8.5 If provided, the beam-limiting device shall indicate numerically the field size in the plane of the image receptor to which it is adjusted.

4.8.6 If collimator indications are provided, the indications shall be such that aperture adjustments result in X-ray field dimensions in the plane of the image receptor which correspond to those of the image receptor to within two percent (2%) of the SID when the beam axis is perpendicular to the plane of the image receptor.

4.8.7 Means shall be provided to measure SIDs, and shall be accurate to within 2%.

4.8.8 Mobile and portable x-ray systems which are used in a single location for a period of greater than one week shall be considered a stationary radiographic system and shall meet the requirements of RHB 4.4.

4.8.9 Mobile and portable x-ray systems which are used at multiple locations shall be provided with an adequate protective barrier or protective apron for the operator and with a method of control which will permit the operator to be at least 6 feet from the tube head and the nearest edge of the useful beam during exposures.

4.8.10 Personnel monitoring shall be required for all operators of mobile and portable x-ray systems.

4.8.11 Tube stands. A tube stand or other mechanical support shall be used for portable x-ray systems so that the x-ray tube housing assembly need not be hand-held during exposures.

4.8.12 All mobile or portable radiographic systems shall be provided with means to limit the source-to-skin distance to equal to or greater than 30 centimeters.

RHB 4.9 Fluoroscopic X-ray Systems. All fluoroscopic x-ray systems shall be image intensified, and meet the following requirements. The requirements of this part apply to all stationary, portable, mobile, and C-arm type fluoroscopes.

4.9.1 Source-to-Skin Distance (SSD). The SSD shall not be less than:

4.9.1.1 Thirty-eight (38) centimeters on stationary fluoroscopic systems manufactured on or after August 1, 1974.

4.9.1.2 Thirty-five and one half (35.5) centimeters on stationary fluoroscopic systems manufactured prior to August 1, 1974.

4.9.1.3 Thirty (30) centimeters on all mobile and portable fluoroscopes.

4.9.1.4 Twenty (20) centimeters for mobile fluoroscopes used for specific surgical procedures. The written safety procedures as required by RHB 4.2.3 must provide precautionary measures to be taken during the use of this type of fluoroscope. If removable, the appropriate spacer shall be replaced after the specific surgical procedure application is complete.

#### 4.9.2 Limitation of Useful Beam.

##### 4.9.2.1 Primary Barrier

4.9.2.1.1 The fluoroscopic imaging assembly shall be provided with a primary protective barrier which intercepts the entire cross section of the useful beam at any SID.

4.9.2.1.2 The x-ray tube used for fluoroscopy shall not produce x-rays unless the barrier is in position to intercept the entire useful beam.

4.9.2.2 X-ray field. Neither the length nor the width of the x-ray field in the plane of the image receptor shall exceed that of the visible area of the image receptor by more than 3 percent of the SID. The sum of the excess length and the excess width shall be no greater than 4 percent of the SID. In addition:

4.9.2.2.1 Means shall be provided to permit further limitation of the x-ray field. Beam-limiting devices manufactured after May 22, 1979, and incorporated in equipment with a variable SID and/or a visible area of greater than 300 square centimeters shall be provided with means for stepless adjustment of the x-ray field;

4.9.2.2.2 All equipment with a fixed SID and a visible area of 300 square centimeters or less shall be provided with either stepless adjustment of the x-ray field or with means to further limit the x-ray field size at the plane of the image receptor to 125 square centimeters or less. Stepless adjustment shall, at the greatest SID, provide continuous field sizes from the maximum obtainable to a field size of 5 centimeters by 5 centimeters or less.

4.9.2.2.3 For equipment manufactured after February 25, 1978, when the angle between the image receptor and beam axis is variable, means shall be provided to indicate when the axis of the x-ray beam is perpendicular to the plane of the image receptor.

4.9.2.2.4 Compliance shall be determined with the beam axis indicated to be perpendicular to the plane of the image receptor. For rectangular x-ray fields used with circular image reception, the error in alignment shall be determined along the length and width dimensions of the x-ray field which pass through the center of the visible area of the image receptor.

4.9.2.2.5 For uncertified image-intensified fluoroscopic equipment with a spot film device, the x-ray beam with the shutters fully opened (during fluoroscopy or spot filming) shall be no larger than the largest spot film size for which the device is designed. Measurements shall be made at the minimum SID available but at no less than 20 centimeters table top to the film plane distance.

4.9.2.3 Spot film devices which are certified components shall meet the following additional requirements.

4.9.2.3.1 Means shall be provided between the source and the patient for adjustment of the x-ray field size in the plane of the film to the size of that portion of the film which has been selected on the spot film selector. Such adjustment shall be automatically accomplished except when the x-ray field size in the plane of the film is smaller than that of the selected portion of the film. For spot film devices manufactured after June 21, 1979, if the x-ray field size is less than the size of the selected portion of the film, the means for adjustment of the field size shall be only at the operator's option.

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4.9.2.3.2 Spot film field size. Neither the length nor the width of the x-ray field in the spot film plane shall exceed the image receptor by more than 3 percent of the SID. The sum of the excess length and the excess width shall be no greater than 4 percent of the SID.

4.9.2.3.3 It shall be possible to adjust the x-ray field size in the plane of the film to a size smaller than the selected portion of the film. The minimum field size at the greatest SID shall be equal to, or less than, 5 centimeters by 5 centimeters.

4.9.2.3.4 The center of the x-ray field in the plane of the film shall be aligned with the center of the selected portion of the film to within 2 percent of the SID.

4.9.2.3.5 On spot-film devices manufactured after February 25, 1978, if the angle between the plane of the image receptor and beam axis is variable, means shall be provided to indicate when the axis of the x-ray beam is perpendicular to the plane of the image receptor, and compliance shall be determined with the beam axis indicated to be perpendicular to the plane of the image receptor.

4.9.3 Activation of the Fluoroscopic Tube. X-ray production in the fluoroscopic mode shall be controlled by a device which requires continuous pressure by the fluoroscopist for the entire time of any exposure. When recording serial fluoroscopic images, the fluoroscopist shall be able to terminate the x-ray exposure(s) at any time, but means may be provided to permit completion of any single exposure of the series in process.

### 4.9.4 Exposure Rate Limits. Entrance Exposure Rate Allowable Limits.

#### 4.9.4.1 For equipment manufactured prior to May 19, 1995:

4.9.4.1.1 Equipment with automatic exposure rate control. Fluoroscopic equipment which is provided with automatic exposure rate control shall not be operable at any combination of tube potential and current which will result in an exposure rate in excess of 10 Roentgens (2.58 mC/kg) per minute at the point where the center of the useful beam enters the patient, except:

4.9.4.1.1.1 During recording of fluoroscopic images; or

4.9.4.1.1.2 When an optional high level control is provided. When so provided, the equipment shall not be operable at any combination of tube potential and current which will result in an exposure rate in excess of 5 Roentgens (1.29 mC/kg) per minute at the point where the center of the useful beam enters the patient unless the high level control is activated. Special means of activation of high level control shall be required. The high level control shall only be operable when continuous manual activation is provided by the operator. A continuous signal audible to the fluoroscopist shall indicate that the high level control is being employed.

4.9.4.1.2 Equipment without automatic exposure rate control. Fluoroscopic equipment which is not provided with automatic exposure rate control shall not be operable at any combination of tube potential and current which will result in an exposure rate in excess of 5 Roentgens (1.29 mC/kg) per minute at the point where the center of the useful beam enters the patient, except:

4.9.4.1.2.1 During recording of fluoroscopic images; or

4.9.4.1.2.2 When an optional high level control is activated. Special means of activation of high level controls shall be required. The high level control shall only be operable when continuous manual activation is provided by the operator. A continuous signal audible to the fluoroscopist shall indicate that the high level control is being employed.



4.9.4.2 For equipment manufactured after May 19, 1995:

4.9.4.2.1 Equipment with automatic exposure rate control. Fluoroscopic equipment which is provided with automatic exposure rate control shall not be operable at any combination of tube potential and current which will result in an exposure rate in excess of 10 Roentgens (2.58 mC/kg) per minute at the point where the center of the useful beam enters the patient, except:

4.9.4.2.1.1 During recording of fluoroscopic images; or

4.9.4.2.1.2 When an optional high level control is provided. When so provided, the equipment shall not be operable at any combination of tube potential and current which will result in an exposure rate in excess of 20 Roentgens (5.16 mC/kg) per minute at the point where the center of the useful beam enters the patient when the high level control is activated. Special means of activation of high level control shall be required. The high level control shall only be operable when continuous manual activation is provided by the operator. A continuous signal audible to the fluoroscopist shall indicate that the high level control is being employed.

4.9.4.2.2 Equipment without automatic exposure control. Fluoroscopic equipment which is not provided with automatic exposure rate control shall not be operable at any combination of tube potential and current which will result in an exposure rate in excess of 5 Roentgens (1.29 mC/kg) per minute at the point where the center of the useful beam enters the patient, except:

4.9.4.2.2.1 During recording of fluoroscopic images; or

4.9.4.2.2.2 When an optional high level control is provided. When so provided, the equipment shall not be operable at any combination of tube potential and current which will result in an exposure rate in excess of 20 Roentgens (5.16 mC/kg) per minute at the point where the center of the useful beam enters the patient when the high level control is activated. Special means of activation of high level control shall be required. The high level control shall only be operable when continuous manual activation is provided by the operator. A continuous signal audible to the fluoroscopist shall indicate that the high level control is being employed.

4.9.4.3 Compliance with 4.9.4.1 and 4.9.4.2 shall be determined as follows:

4.9.4.3.1 If the source is below the x-ray table, the exposure rate shall be measured 1 centimeter above the tabletop or cradle.

4.9.4.3.2 If the source is above the x-ray table, the exposure rate shall be measured at 30 centimeters above the tabletop with the end of the beam-limiting device or spacer positioned as closely as possible to the point of measurement.

4.9.4.3.3 In a C-arm type of fluoroscope, the exposure rate shall be measured 30 centimeters from the input surface of the fluoroscopic imaging assembly.

4.9.4.3.4 For a variable SID C-arm type of fluoroscope the exposure rate shall be measured 30 centimeters from the input surface of the fluoroscopic imaging assembly, with the end of the beam-limiting device or spacer positioned as close as possible to the point of measurement.

4.9.4.3.5 In a lateral type fluoroscope, the exposure rate shall be measured at a point 15 centimeters from the centerline of the x-ray table and in the direction of the x-ray source with the end of the beam-limiting device or spacer positioned as closely as possible to the point of measurement. If the tabletop is movable, it shall be positioned as closely as possible to the lateral x-ray source, with the end of the beam-limiting device or spacer no closer than 15 centimeters to the centerline of the x-ray table.

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4.9.4.3.6 Periodic measurement of entrance exposure rate shall be performed for both maximum and typical values in each mode used clinically annually, and after any maintenance of the system which might affect the exposure rate. Results of the most recent measurements in each mode used clinically shall be posted where any fluoroscopist may have ready access to such results while using the fluoroscope and be included in the records required in RHB 4.2.16.1. The measurement results shall be stated in Roentgens per minute and include the technique factors used in determining such results. The name of the person performing the measurements and the date the measurements were performed shall be included in the results.

4.9.4.3.7 Conditions of measurement of maximum entrance exposure rate are as follows:

4.9.4.3.7.1 The measurement shall be made under the conditions that satisfy the requirements of RHB 4.9.4.3.

4.9.4.3.7.2 The kVp, mA, and other selectable parameters shall be adjusted to those settings which give the maximum entrance exposure rate.

4.9.4.3.7.3 The x-ray system that incorporates automatic exposure rate control shall have sufficient attenuative material placed in the useful beam to produce the maximum output of that system.

4.9.4.3.7.4 Testing shall be performed in each mode used clinically.

4.9.4.3.8 Conditions of measurement of typical entrance exposure rate are as follows:

4.9.4.3.8.1 The measurement shall be made under the conditions that satisfy the requirements of RHB 4.9.4.3.

4.9.4.3.8.2 The kVp and mA shall be typical of clinical use of the x-ray system.

4.9.4.3.8.3 The x-ray system(s) that incorporates automatic exposure rate control shall have sufficient attenuative material placed in the useful beam to produce a milliAmpere and/or kiloVoltage typical of the use of the x-ray system.

4.9.4.3.8.4 Testing shall be performed in each mode used clinically.

4.9.5 Barrier Transmitted Radiation Rate Limits. The exposure rate due to transmission through the primary protective barrier with the attenuation block in the useful beam, combined with radiation from the image intensifier, shall not exceed 2 milliRoentgen (0.516 uC/kg) per hour at 10 centimeters from any accessible surface of the fluoroscopic imaging assembly beyond the plane of the image receptor for each Roentgen per minute of entrance exposure rate.

4.9.5.1 Measuring Compliance of Barrier Transmission.

4.9.5.1.1 The exposure rate due to transmission through the primary protective barrier combined with radiation from the image intensifier shall be determined by measurements averaged over an area of 100 square centimeters with no linear dimension greater than 20 centimeters.

4.9.5.1.2 If the source is below the tabletop, the measurement shall be made with the input surface of the fluoroscopic imaging assembly positioned 30 centimeters above the tabletop.

4.9.5.1.3 If the source is above the tabletop and the SID is variable, the measurement shall be made with the end of the beam-limiting device or spacer as close to the tabletop as it can be placed, provided that it shall not be closer than 30 centimeters.

4.9.5.1.4 Compression devices shall be removed from the useful beam during the measurement.

4.9.6 Indication of Potential and Current. During fluoroscopy and cinefluoroscopy the kV and mA shall be continuously indicated.

#### 4.9.7 Fluoroscopic Timer.

4.9.7.1 Means shall be provided to preset the cumulative on-time of the fluoroscopic x-ray tube. The maximum cumulative time of the timing device shall not exceed 5 minutes without resetting.

4.9.7.2 A signal audible to the fluoroscopist shall indicate the completion of any preset cumulative on-time. Such signal shall continue to sound while x-rays are produced until the timing device is reset.

#### 4.9.8 Control of Scattered Radiation.

4.9.8.1 Fluoroscopic table designs when combined with procedures utilized shall be such that no unprotected part of any staff or ancillary individual's body shall be exposed to unattenuated scattered radiation which originates from under the table. The attenuation required shall be not less than 0.25 millimeter lead equivalent.

4.9.8.2 Equipment configuration when combined with procedures shall be such that no portion of any staff or ancillary individual's body, except the extremities, shall be exposed to the unattenuated scattered radiation emanating from above the tabletop unless that individual:

4.9.8.2.1 Is at least 120 centimeters from the center of the useful beam; or

4.9.8.2.2 The radiation has passed through not less than 0.25 millimeter lead equivalent material including, but not limited to, drapes, Bucky-slot cover panel, or self-supporting curtains, in addition to any lead equivalency provided by the protective apron referred to in RHB 4.2.9.2.

4.9.8.3 The Department may grant exemptions to RHB 4.9.8.2.2 where a sterile field will not permit the use of the normal protective barriers. Automatic exemptions will be granted for fluoroscopic procedures listed in Appendix E.

4.9.9 Spot-Filming Procedures. Fluoroscopic x-ray systems equipped with a spot-film device must meet the following requirements for spot-film procedures:

4.9.9.1 Timers. Means shall be provided to terminate the exposure at a preset time interval, preset product of current and time, a preset number of pulses, or a preset radiation exposure to the image receptor. In addition, it shall not be possible to make an exposure when the timer is set to a zero or off position if either position is provided.

4.9.9.2 Timer Reproducibility. With a timer setting of 0.5 second or less, the average exposure period ( $\bar{T}$ ) shall be greater than or equal to 5 times the maximum exposure period ( $T_{max}$ ) minus the minimum exposure period ( $T_{min}$ ) when 4 timer tests are performed:  $\bar{T} \geq 5 (T_{max} - T_{min})$ .

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4.9.9.3 Exposure Reproducibility. The coefficient of variation of exposure shall not exceed 0.05 when all selectable technique factors are held constant. This requirement shall be deemed to have been met if, when four exposures are made at identical technique factors, the value of the average exposure ( $\bar{E}$ ) is greater than or equal to 5 times the maximum exposure ( $E_{max}$ ) minus the minimum exposure ( $E_{min}$ ):  $\bar{E} \geq 5(E_{max} - E_{min})$ .

4.9.10 Mobile and Portable fluoroscopic x-ray systems which are used in a single location for a period of greater than one week shall be considered a stationary fluoroscopic system, and shall meet all the requirements of RHB 4.4.

4.9.11 Radiation Therapy Simulation Systems. Radiation therapy simulation systems shall be exempt from all the requirements of 4.9.2, 4.9.4, 4.9.5, and 4.9.7 provided that:

4.9.11.1 Such systems are designed and used in such a manner that no individual other than the patient is in the x-ray room during periods of time when the system is producing x-rays, unless the procedure requires the presence of other individuals.

4.9.11.2 Systems which do not meet the requirements of RHB 4.9.7 are provided with a means of indicating the cumulative time that an individual patient has been exposed to x-rays. Procedures shall require in such cases that the timer be reset between examinations.

4.9.12 Fluoroscopic Quality Assurance. In addition to the requirements of RHB 4.2.16, the fluoroscopic image resolution shall be tested as part of the quality assurance program. This shall be performed at least annually.

### 4.9.13 Vertical Fluoroscopic Imaging Systems.

4.9.13.1 SSD. The SSD shall not be less than 38 centimeters.

4.9.13.2 Limitation of Useful Beam. All provisions of 4.9.2 apply.

4.9.13.3 Entrance Exposure Rates. All provisions of 4.9.4 apply.

4.9.13.4 Activation of the Fluoroscopic Tube. X-ray production in the fluoroscopic mode shall be controlled by a device which requires continuous pressure by the fluoroscopist for the entire time of any exposure. When recording serial fluoroscopic images, the fluoroscopist shall be able to terminate the x-ray exposure(s) at any time, but means may be provided to permit completion of any single exposure of the series in process.

4.9.13.5 Indication of Potential and Current. During fluoroscopy and cinefluorography the kV and mA shall be continuously indicated.

### 4.9.13.6 Fluoroscopic Timer.

4.9.13.6.1 Means shall be provided to preset the cumulative on-time of the fluoroscopic x-ray tube. The maximum cumulative time of the timing device shall not exceed 5 minutes without resetting.

4.9.13.6.2 A signal audible to the fluoroscopist shall indicate the completion of any preset cumulative on-time. Such signal shall continue to sound while x-rays are produced until the timing device is reset.

4.9.13.7 Operators shall remain in a protected area during exposures, or shall be protected by aprons of not less than 0.5 mm lead equivalent material.

4.9.13.8 Spot-Filming Procedures. Fluoroscopic x-ray systems equipped with a spot-film device must meet the following requirements for spot-film procedures:

4.9.13.8.1 Timers. Means shall be provided to terminate the exposure at a preset time interval, preset product of current and time, a preset number of pulses, or a preset radiation exposure to the image receptor. In addition, it shall not be possible to make an exposure when the timer is set to a zero or off position if either position is provided.

4.9.13.8.2 Timer Reproducibility. With a timer setting of 0.5 second or less, the average exposure period ( $\bar{T}$ ) shall be greater than or equal to 5 times the maximum exposure period ( $T_{max}$ ) minus the minimum exposure period ( $T_{min}$ ) when 4 timer tests are performed:  $\bar{T} \geq 5(T_{max} - T_{min})$ .

4.9.13.8.3 Exposure Reproducibility. The coefficient of variation of exposure shall not exceed 0.05 when all technique factors are held constant. This requirement shall be deemed to have been met if, when four exposures are made at identical technique factors, the value of the average exposure ( $\bar{E}$ ) is greater than or equal to 5 times the maximum exposure ( $E_{max}$ ) minus the minimum exposure ( $E_{min}$ ):  $\bar{E} \geq 5(E_{max} - E_{min})$ .

#### RHB 4.10 Bone Densitometry Systems.

The requirements of this part apply to all stationary, portable, and mobile x-ray bone densitometry systems.

4.10.1 Registration. All provisions of RHB 2.3 and 2.4 apply.

4.10.2 Shielding.

4.10.2.1 Stationary Units. The registrant shall submit a shielding plan, as required by RHB 4.4 to the Department for review and acceptance.

4.10.2.2 Peripheral units are exempt from 4.10.2.1.

4.10.3 Location. The bone densitometry system shall be placed in a controlled area. The operator, ancillary personnel, and members of the general public shall be positioned at least one meter from the patient and bone densitometry system during examination.

4.10.4 Administrative Requirements.

4.10.4.1 Personnel Monitoring. All provisions of RHB 3.12 and 3.22 apply.

4.10.4.2 Posting Requirements. All provisions of RHB 3.16.1, 4.2.7, and 10.2.1 apply.

4.10.4.3 Operating Procedures. All provisions of RHB 4.2.3 apply.

4.10.4.4 Operators. All provisions of RHB 4.2.2 apply.

#### RHB 4.11 Computed Tomography (CT) X-ray Systems.

4.11.1 Equipment Requirements.

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### 4.11.1.1 Tomographic Plane Indication and Alignment.

4.11.1.1.1 For any single tomogram system, means shall be provided to permit visual determination of the tomographic plane or a reference plane offset from the tomographic plane.

4.11.1.1.2 For any multiple tomogram system, means shall be provided to permit visual determination of the location of a reference plane. The reference plane can be offset from the location of the tomographic planes.

4.11.1.1.3 If a device using a light source is used to satisfy 4.11.1.1.1 or 4.11.1.1.2, the light source shall provide illumination levels sufficient to permit visual determination of the location of the tomographic plane or reference plane under ambient light conditions.

4.11.1.2 Indication of CT Conditions of Operation. The CT x-ray system shall be designed to be used during a scan or a scan sequence are indicated prior to the initiation of a scan or a scan sequence. On equipment having all or some of these conditions of operation at fixed values, this requirement may be met by permanent markings. Indication of CT conditions of operation shall be visible from any position from which scan initiation is possible.

### 4.11.1.3 Initiation of Operation.

4.11.1.3.1 The x-ray control and gantry shall provide visual indication whenever x-rays are produced and, if applicable, whether the shutter is open or closed.

4.11.1.3.2 Means shall be provided to require operator initiation of each individual scan or series of scans.

4.11.1.3.3 All emergency buttons/switches shall be clearly labeled as to their functions.

### 4.11.1.4 Termination of Exposure.

4.11.1.4.1 Means shall be provided to terminate the x-ray exposure automatically by either de-energizing the x-ray source or shuttering the x-ray beam in the event of equipment failure affecting data collection. Such termination shall occur within an interval that limits the total scan time to no more than 110 percent of its preset value through the use of either a backup timer or devices which monitor equipment function.

4.11.1.4.2 A visible signal shall indicate when the x-ray exposure has been terminated through the means required by 4.11.1.4.1.

4.11.1.4.3 The operator shall be able to terminate the x-ray exposure at any time during a scan, or series of scans under x-ray system control, of greater than 0.5 second duration. Termination of the x-ray exposure shall necessitate resetting of the CT conditions of operation prior to initiation of another scan.

4.11.1.5 Extraneous Radiation. The system shall perform such that the radiation produced adjacent to the tube housing assembly, including the tube port, during periods of time that scans are not being performed does not exceed the levels permitted by RHB 4.3.3.

4.11.1.6 Additional Requirements Applicable to CT X-ray Systems Containing a Gantry Manufactured After September 3, 1985.

4.11.1.6.1 The total error in the indicated location of the tomographic plane or reference plane shall not exceed 5 millimeters.

4.11.1.6.2 If the x-ray production period is less than 0.5 second, the indication of x-ray production shall be actuated for at least 0.5 second. Indicators at or near the gantry shall be discernable from any point external to the patient opening where insertion of any part of the human body into the primary beam is possible.

4.11.1.6.3 The deviation of indicated scan increment versus actual increment shall not exceed to within 1 millimeter with any mass from 0 to 100 kilograms resting on the support device. The patient support device shall be incremented from a typical starting position to the maximum incremented distance or 30 centimeters, whichever is less, and then returned to the starting position. Measurement of actual versus indicated scan increment can be taken anywhere along this travel.

#### 4.11.2 Facility Design Requirements.

4.11.2.1 The control panel and x-ray control must be mounted in a permanently protected area outside the computed tomography room. The operator is required to remain in that protected area during the entire exposure.

4.11.2.2 Aural Communication. Provision shall be made for two-way aural communication between the patient and the operator at the control panel.

4.11.2.3 Facilities designed with an open area in the control room that leads to the gantry shall mark this open area conspicuously indicating not to stand or sit in this area during x-ray exposures.

4.11.2.3.1 Any facility with equipment installed before May 25, 2001, shall meet the requirements of RHB 4.11.2.3 no later than 12 months after the effective date of these regulations.

4.11.2.4 Units installed after May 25, 2001, shall have the outside door(s) of the gantry room interlocked so that a scan cannot be initiated if the door is not completely closed.

#### 4.11.2.5 Viewing Systems.

4.11.2.5.1 Windows, mirrors, closed-circuit television, or an equivalent shall be provided to permit continuous observation of the patient during irradiation and shall be so located that the operator can observe the patient from the control panel.

4.11.2.5.2 When the primary viewing system is by electronic means, an alternate viewing system (which may be electronic) shall be available for use in the event of failure of the primary viewing system.

#### 4.11.3 Dose Measurements and Spot Checks.

##### 4.11.3.1 Dose Measurement.

4.11.3.1.1 Dose measurements of the radiation output of the CT x-ray system shall be performed by, or under the direction of, a Class IX Vendor.

4.11.3.1.2 Dose measurements of a CT x-ray system shall be performed at intervals specified by a Class IX Vendor and after any change or replacement of components which, in the opinion of the vendor could cause a significant change in the radiation output.

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4.11.3.1.3 Measurements of the radiation output of the CT x-ray system shall be performed with a calibrated dosimetry system. The dosimetry system shall have been calibrated or intercompared with a calibrated chamber within the preceding 2 years. The calibration of such system shall be traceable to a national standard.

4.11.3.1.4 Records of equipment performance tests performed shall be maintained for inspection by the Department.

### 4.11.3.2 Spot Checks.

4.11.3.2.1 Spot check procedures shall be developed by a Class IX vendor who specializes in diagnostic radiological physics.

4.11.3.2.2 All spot checks shall be included in the calibration required by RHB 4.11.3.1, and otherwise at time intervals and system conditions specified by a Class IX Vendor.

4.11.3.2.3 Spot checks shall include acquisition of images obtained with the phantoms using the same processing mode and CT conditions of operation as are used to perform dose measurements required by RHB 4.11.3.1. The images shall be retained, until a new dose measurement is performed, in one of two forms as follows:

4.11.3.2.3.1 Photographic copies of the images obtained from the image display view; and

4.11.3.2.3.2 Images stored in digital form of the most recent spot check on a storage medium compatible with the CT x-ray system.

4.11.4 Ancillary personnel who are not necessary for the safety of the patient shall not be present in the area of the CT unit while exposures are being made.

4.11.5 CT units used in radiation therapy treatment planning are exempt from the requirements of RHB 4.11.3.1. All other provisions of RHB 4.11 apply.

## RHB 4.12 Veterinary Radiographic Systems.

4.12.1 Administrative Requirements. All provisions of RHB 4.2 apply, except 4.2.2, 4.2.7, 4.2.10, and 4.2.11.

4.12.2 Radiation Protection. All provisions of RHB 4.2.9 apply, except 4.2.9.3.

4.12.3 Holding of Patients and Films. All provisions of RHB 4.2.12 apply. In addition:

4.12.3.1 Each human holder in a veterinary facility shall utilize protective apparel .

4.12.3.2 Each veterinary facility that holds patients shall provide personnel monitoring devices. If the human holder's hands are in or near the primary beam and lead gloves are not utilized, then ring badges shall also be provided and worn.

4.12.4 General Requirements. All provisions of RHB 4.3 and 4.4 apply.

4.12.5 Means shall be provided for independent stepless adjustment of at least two dimensions of the x-ray field.



4.12.6 Means shall be provided to indicate when the axis of the x-ray beam is perpendicular to the plane of the image receptor.

4.12.7 Means shall be provided for visually defining the perimeter of the X-ray field. The total misalignment of the edges of the visually defined field shall not exceed two percent (2%) of the distance from the source to the center of the visually defined field when the surface upon which it appears is perpendicular to the axis of the x-ray beam.

4.12.8 The beam-limiting device shall indicate numerically the field size in the plane of the image receptor to which it is adjusted.

4.12.9 Indication of field size dimensions and SID's used shall be specified in inches and/or centimeters on the collimator. The indications on the collimator shall be such that aperture adjustments result in X-ray field dimensions in the plane of the image receptor which correspond to those of the image receptor to within two percent (2%) of the SID when the beam axis is perpendicular to the plane of the image receptor.

4.12.10 The beam-limiting device shall be provided with SID scales that reflect the actual SID(s) used for radiographic procedures.

4.12.10.1 Means shall be provided to align the center of the x-ray field with the center of the image receptor to within 2% of the SID.

4.12.10.2 Diaphragms or cones when provided for collimating the useful beam to the area of clinical interest shall meet the requirements of RHB 4.7.2.

4.12.10.3 Minimum Field Size. The minimum field size at an SID of 100 cm shall be equal to or less than 5 cm X 5 cm.

4.12.11 Radiation Exposure Control Devices.

4.12.11.1 Timers. Means shall be provided to terminate the exposure at a preset time interval, preset product of current and time, a preset number of pulses, or a preset radiation exposure to the image receptor. In addition, it shall not be possible to make an exposure when the timer has been set to a zero or off position if either position is provided.

4.12.11.2 X-ray Control.

4.12.11.2.1 An x-ray control shall be incorporated into each x-ray system such that an exposure can be terminated by the operator at any time ("deadman" switch) except for exposures of one-half (1/2) second or less, or during serial radiography when means shall be provided to permit completion of any single exposure of the series in process.

4.12.11.2.2 The X-ray control shall provide visual indication observable at or from the operator protected position whenever X-rays are produced. In addition, a signal audible to the operator shall indicate that the exposure has terminated.

4.12.11.2.3 Timer Reproducibility. With a timer setting of 0.5 second or less, the average exposure period ( $\bar{T}$ ) shall be greater than or equal to 5 times the maximum exposure period ( $T_{max}$ ) minus the minimum exposure period ( $T_{min}$ ) when 4 timer test are performed:  $\bar{T} \geq 5 (T_{max} - T_{min})$ .

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4.12.12 Exposure Reproducibility. The coefficient of variation of exposure shall not exceed 0.05 when all technique factors are held constant. This requirement shall be deemed to have been met if, when four exposures are made at identical technique factors, the value of the average exposure ( $\bar{E}$ ) is greater than or equal to 5 times the maximum exposure ( $E_{max}$ ) minus the minimum exposure ( $E_{min}$ ):  $\bar{E} \geq 5(E_{max} - E_{min})$ .

4.12.13 Radiation from Capacitor Energy Storage Equipment in Standby Status. Radiation emitted from the X-ray tube when the exposure switch or timer is not activated shall not exceed a rate of 2 milliRoentgen per hour at five (5) centimeters from any accessible surface of the diagnostic source assembly, with the beam-limiting device fully open.

4.12.14 Accuracy. Deviation of technique factors from indicated values shall not exceed the limits specified for that system by its manufacturer. In the absence of manufacturer's specifications, the deviation shall not exceed 10% of the indicated value.

4.12.15 Linearity. The following requirements apply when the equipment is operated on a power supply as specified by the manufacturer for any fixed x-ray tube potential within the range of 40 percent to 100 percent of the maximum rated.

4.12.15.1 Equipment having independent selection of x-ray tube current (mA). The average ratios of exposure to the indicated milliAmpere-seconds product (C/kg/mAs (or mR/mAs)) obtained at any tube current settings shall not differ by more than 0.10 times their sum. This is:  $[X1-X2] < 0.10(X1+X2)$ ; where X1 and X2 are the average C/kg/mAs (or mR/mAs) values obtained at any two tube current settings.

4.12.15.2 Equipment having a combined x-ray tube current-exposure time product (mAs) selector, but not a separate tube current (mA) selector. The average ratios of exposure to the indicated milliAmpere-seconds product (C/kg/mAs (or mR/mAs)) obtained at any two mAs selector settings shall not differ by more than 0.10 times their sum. This is:  $[X1-X2] < 0.10(X1+X2)$ ; where X1 and X2 are the average C/kg/mAs (or mR/mAs) values obtained at any two mAs selector settings.

4.12.15.3 Measuring Compliance. Determination of compliance shall be based on 4 exposures, at each of the two settings. These two settings may include any two focal spot sizes provided that neither focal spot size is equal to or less than 0.45 millimeter, in which case the two settings shall be restricted to the same focal spot size. For purposes of this requirement, focal spot size is the nominal focal spot size specified by the x-ray tube manufacturer.

### 4.12.16 Light Localization.

4.12.16.1 When a light field is used to define the x-ray field, it shall provide an average illumination of not less than 15 footcandles at 100 centimeters or at the maximum SID, whichever is less. The average illumination shall be based upon measurements made in the approximate center of each quadrant of the light field.

4.12.16.2 Exemptions to RHB 4.12.16.1 shall be granted if the registrant demonstrates to the Department that their equipment is unable to meet these regulations.

4.12.17 SID Indication. Means shall be provided to indicate the SID. SIDs shall be indicated in inches and/or centimeters, and shall be indicated to within 2 percent.

4.12.18 Fluoroscopic X-ray Systems. Veterinary fluoroscopic x-ray systems shall meet the following requirements:

#### 4.12.18.1 Limitation of Useful Beam.

## 4.12.18.1.1 Primary Barrier.

4.12.18.1.1.1 The fluoroscopic imaging assembly shall be provided with a primary protective barrier which intercepts the entire cross section of the useful beam at any SID.

4.12.18.1.1.2 The x-ray tube used for fluoroscopy shall not produce x-rays unless the barrier is in position to intercept the entire useful beam.

4.12.18.1.2 X-ray Field. The x-ray field produced by non-image intensified fluoroscopic equipment shall not extend beyond the entire visible area of the image receptor. This requirement applies to field size for both fluoroscopic procedures and spot filming procedures. In addition:

4.12.18.1.2.1 Means shall be provided for stepless adjustment of the field size;

4.12.18.1.2.2 The minimum field size at the greatest SID shall be equal to or less than 5 centimeters by 5 centimeters.

4.12.18.1.2.3 For image-intensified fluoroscopic equipment, neither the length nor the width of the x-ray field in the plane of the image receptor shall exceed that of the visible area of the image receptor by more than 3 percent of the SID. The sum of the excess length and the excess width shall be no greater than 4 percent of the SID. In addition, means shall be provided to permit further limitation of the field.

4.12.18.2 Activation of the Fluoroscopic Tube. X-ray production in the fluoroscopic mode shall be controlled by a device which requires continuous pressure by the fluoroscopist for the entire time of any exposure. When recording serial fluoroscopic images, the fluoroscopist shall be able to terminate the x-ray exposure(s) at any time, but means shall be provided to permit completion of any single exposure of the series in process.

## 4.12.18.3 Barrier Transmitted Radiation Rate Limits.

4.12.18.3.1 The exposure rate due to transmission through the primary protective barrier with the attenuation block in the useful beam, combined with radiation from the image intensifier, if provided, shall not exceed 2 milliRoentgen (0.516 uC/kg) per hour at 10 centimeters from any accessible surface of the fluoroscopic imaging assembly beyond the plane of the image receptor for each Roentgen per minute of entrance exposure rate.

## 4.12.18.3.2 Measuring Compliance of Barrier Transmission.

4.12.18.3.2.1 The exposure rate due to transmission through the protective barrier with the attenuation block in the useful beam, combined with radiation from the image intensifier shall be determined by measurements averaged over an area of 100 square centimeters with no linear dimension greater than 20 centimeters.

4.12.18.3.2.2 If the source is below the tabletop, the measurement shall be made with the input surface of the fluoroscopic imaging assembly positioned 30 centimeters above the tabletop.

4.12.18.3.2.3 If the source is above the tabletop and the SID is variable, the measurement shall be made with the end of the beam-limiting device or spacer as close to the tabletop as it can be placed, provided that it shall not be closer than 30 centimeters.

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4.12.18.4 Indication of Potential and Current. During fluoroscopy the kV and mA shall be continuously indicated.

4.12.18.5 Mobile Fluoroscopes. In addition to the other requirements of this Part, mobile fluoroscopes shall provide intensified imaging.

4.12.18.6 Control of Scattered Radiation.

4.12.18.6.1 Fluoroscopic table designs when combined with procedures utilized shall be such that no unprotected part of any staff or ancillary individual's body shall be exposed to unattenuated scattered radiation which originates from under the table. The attenuation required shall be not less than 0.25 millimeter lead equivalent.

4.12.18.6.2 Equipment configuration when combined with procedures shall be such that no portion of any staff or ancillary individual's body, except the extremities, shall be exposed to unattenuated scattered radiation emanating from above the tabletop unless that individual:

4.12.18.6.2.1 Is at least 120 centimeters from the center of the useful beam; or

4.12.18.6.2.2 The radiation has passed through not less than 0.25 millimeter lead equivalent material including, but not limited to, drapes, Bucky-slot cover panel, or self-supporting curtains, in addition to any lead equivalency provided by the protective apparel referred to in RHB 4.12.3.1.

4.12.19 X-ray Systems Designed for One Image Receptor Size. Radiographic equipment designed for only one image receptor size at a fixed SID shall be provided with means to limit the field at the plane of the image receptor, and to align the center of the x-ray field with the center of the image receptor to within two percent (2%) of the SID, or shall be provided with means to both size and align the x-ray field such that the x-ray field at the plane of the image receptor does not extend beyond any edge of the image receptor.

4.12.20 Veterinary Computed Tomography X-ray Systems -Where applicable, all provisions of RHB 4.11 apply.

4.12.21 Veterinary Dental Systems – Where applicable, all provisions of RHB 4.5 apply.

4.12.22 Operator Requirements. The registrant shall assure that all x-ray machines under his control are operated only by individuals adequately instructed in safe operating procedures and competent in the safe use of the equipment.

4.12.22.1 The registrant shall require persons operating registered equipment and associate equipment to receive, at a minimum, instruction in the following areas:

4.12.22.1.1 Radiation Protection. Training in radiation protection shall include protective clothing; patient holding; time, distance, and shielding; and radiation protection standards.

4.12.22.1.2 Darkroom Techniques. Training in darkroom techniques shall include developing chemicals; film protection; cassettes; and screens.

4.12.22.1.3 Machine Safety. Training in machine safety shall include machine functions; safety procedures; and recognizing problems.

4.12.22.1.4 General Operating Procedures. Training in general operating procedures shall include patient positioning for x-ray exams; radiographic techniques; use of personnel monitoring devices; and quality assurance procedures.

4.12.22.2 Instruction required by 4.12.22.1 shall begin within 30 days after employment. Training shall be provided for each type of exam that the operator will be required to perform at that facility. The registrant shall maintain a record of all training for each operator. Such records shall be made available for Departmental inspection.

**RHB 4.13 Medical Specimen Unit.**

4.13.1 Administrative Requirements. All provisions of RHB 4.2.2.7 apply.

4.13.2 Radiation Protection. Upon installation, the medical specimen unit shall not be operated until a physical radiation survey of the unit and areas adjacent to the unit has been performed. A radiation survey of the unit and areas adjacent to the unit shall also be performed at least annually, and after any repair, modification, or maintenance on the system. Documentation of the surveys shall be maintained for inspection by the Department.

4.13.3 At least annually, tests of all safety devices such as interlocks shall be conducted annually for medical specimen units. Documentation of such tests shall be maintained for inspection by the Department.

4.13.4 Radiation emitted from the medical specimen unit shall not exceed 0.5 milliRoentgens per hour at an point five centimeters from the external surface.

4.13.5 When not in operation the medical specimen unit shall be secured.

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### Part IV - Appendix A

#### Information To Be Submitted By Persons Proposing To Conduct Healing Arts Screening.

Persons requesting that the Department approve a healing arts screening program shall submit the following information for review and approval:

1. Name and address of the applicant, and where applicable, the names and addresses of agents within the State.
2. Diseases or conditions for which the X-ray examinations are to be used.
3. Description in detail of the X-ray examinations proposed in the screening program.
4. Description of the population to be examined in the screening program, i.e., age, sex, physical condition, and other appropriate information.
5. An evaluation of any known alternate methods not involving ionizing radiation which could achieve the goals of the screening program and why these methods are not used in preference to the X-ray examinations.
6. An evaluation by a qualified expert of the X-ray system(s) to be used in the screening program. The evaluation by the qualified expert shall show that such system(s) do satisfy all requirements of these regulations.
7. A description of the diagnostic film quality control program.
8. A copy of the technique chart for the X-ray examinations procedures to be used.
9. The qualifications of each individual who will be operating the X-ray system(s).
10. The qualifications of the individual who will be supervising the operators of the X-ray system(s).
11. The name and address of the individual who will interpret the radiograph(s).
12. A description of the procedures to be used in advising the individuals screened and their private practitioners of the healing arts of the results of the screening procedure and any further medical needs indicated.
13. A description of the procedures for the retention or disposition of the radiographs and other records pertaining to the X-ray examinations.

## Part IV - Appendix B

## Information on Radiation Shielding Required for Plan Review.

The following information must be provided to the Department for review and acceptance of a shielding plan:

## 1. Plans shall show, at a minimum, the following:

(a) The normal location of the x-ray system's radiation port; the port's travel and traverse limits; general direction(s) of the useful beam; locations of any windows and doors; the location of the operator's booth; the location of the x-ray control panel, and the location of the wall bucky or chest board, if applicable.

(b) The structural composition and thickness or lead equivalent of all walls, doors, partitions, floor, and ceiling of the room(s) concerned.

(c) A scale drawing of the room(s) concerned.

(d) The type of occupancy of all adjacent areas inclusive of space above and below the room(s) concerned. If there is an exterior wall, show distance to the closest area(s) where it is likely that individuals may be present.

(e) The type of x-ray equipment and the maximum technique factors.

(f) The type of examination(s) or treatment(s) which will be performed with the equipment.

(g) Location of the darkroom and the area where the film will be stored. Any shielding which will be used to protect the film must be noted. The use of filmless systems shall be indicated in writing.

2. Information on the anticipated workload of the x-ray system(s). Give the number of individual exposures per week. This is the total number of exposures (not patients) taken each week. This figure should include allowances for future growth so that the shielding will continue to remain adequate.

3. The most common exam and the average technique factors for this exam must be included. The mA, kVp, exposure time, and number of exposures per week (workload) will allow the workload of the facility to be calculated. If exposures are phototimed, include manual backup techniques.

4. Include all source-to-image distance (SIDs) used and the percent of time each will be used. Include the percent of time the beam will be directed toward the table and the chest board, upright bucky, or head unit, if applicable.

5. Individual barrier radiation shielding specifications and descriptions of all assumptions that were used in the shielding calculations.

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### Part IV - Appendix C

#### Design Requirements for an Operator's Booth

##### 1. Space Requirements:

(a) The operator shall be allotted not less than 7.5 square feet (0.697 m<sup>2</sup>) of unobstructed floor space in the booth.

(b) The operator's booth may be any geometric configuration with no dimension less than 2 feet (0.61m).

(c) The space shall be allotted excluding any encumbrance by the x-ray control panel, such as overhang, cables, or other similar encroachments.

(d) The booth shall be located or constructed such that unattenuated direct scatter radiation originating on the examination table or at the wall cassette cannot reach the operator's station in the booth.

##### 2. Structural Requirements:

(a) The booth walls shall be permanently fixed barriers of at least 7 feet (2.13m) high.

(b) When a door or movable panel is used as an integral part of the booth structure, it must have an interlock which will prevent an exposure when the door or panel is not closed.

(c) Shielding shall be provided to meet the requirements of RHB 4.4.

##### 3. X-ray Control Placement:

The x-ray control for the system shall be fixed within the booth and:

(a) Shall be at least 40 inches (1.02m) from any open edge of the booth wall which is nearest to the source of radiation, excluding mammography equipment. If the exposure switch is separate from the control panel, the exposure switch shall be at least 40 inches (1.02m) from any open edge of the booth wall which is nearest to the source of radiation.

(b) Shall allow the operator to use the majority of the available viewing windows.

##### 4. Viewing System Requirements:

(a) Each booth shall have at least one viewing device which will:

(i) Be so placed that the operator can view the patient during any exposure; and

(ii) The device shall be so placed that the operator can have full view of any occupant of the room and shall be so placed that the operator can view any entry into the room. If any door which allows access to the room cannot be seen from the booth, then that door must have an interlock controlling the exposure which will prevent the exposure if the door is not closed.

(b) When the viewing system is a window, the following requirements also apply:

(i) It shall have a viewing area of at least 1 square foot (0.0929 m<sup>2</sup>).



(ii) The design of the booth shall be such that the operator's expected position when viewing the patient and operating the x-ray system is at least 18 inches (0.457m) from the edge of the booth.

(iii) The material constituting the window shall have the same lead equivalence as that required in the booth's wall in which it is mounted.

(c) When the viewing system is by mirrors, the mirror(s) shall be so located as to accomplish the general requirements of this Part.

(d) When the viewing system is by electronic means:

(i) The camera shall be so located as to accomplish the general requirements of this Part; and

(ii) There shall be an alternate viewing system as a backup for the primary system.

5. Alternative Design Criteria. The design considerations listed in Appendix C shall be followed. If design criteria in Appendix C cannot be followed, the registrant may offer alternative design criteria to the Department for acceptance as long as the same degree of safety is being met.

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### Part IV - Appendix D

#### Average Patient Exposure Guide Medical ESE's

Compliance with RHB 4.2.13.2 may be determined if the patient's exposure at skin entrance (ESE) does not vary from the national averages listed below by more than 50%. Facilities should strive for an ESE that does not vary from the national average by more than 20%. Facilities utilizing digital imaging systems shall not exceed the ESE Limits as outlined for a 200 speed system.

#### National Average ESE (mR)

#### ESE Limits

Projection	National Average ESE (mR)		ESE Limits		Digital
	200 speed	400 speed	200 speed	400 speed	
Abdomen (A/P)	490	300	245-735	150-450	245-735
Lumbar Spine (A/P)	450	350	225-675	175-525	225-675
Full Spine (A/P)	260	145	130-390	72-218	130-390
Cervical Spine (A/P)	135	95	67-203	47-142	67-203
Skull (Lat)	145	70	72-218	35-105	72-218
Chest (P/A) w/grid	25	15	12-38	7-23	12-38
Without grid	15	5	7-23	2-8	7-23

	Film/Screen All Types	Film/Screen All Types
Retrograde Pyelogram (A/P)	595	297-893
Thoracic Spine (A/P)	408	204-612
Foot (D/P)	74	37-111
Cephalometric	30	15-45

Notes:

- (a) Patient thicknesses are expressed in centimeters (cm).
- (b) All measurements are made in air (no phantom).
- (c) If the film/screen speed cannot be determined, it will be assumed to be 200 speed.
- (d) Patient thickness (cm):

Abdomen (A/P)	23	Lumbar Spine (A/P)	23
Full Spine (A/P)	23	Cervical Spine (A/P)	13
Skull (Lat)	15	Chest (P/A)	23
Ret Pyelogram (A/P)	23	Thoracic Spine(A/P)	23
Foot (D/P)	8	Cephalometric	15

Mammography ESE's: Refer to RHB 5.11.5.10

**Dental Intraoral ESE's:**

This chart represents the range of exposures that will produce acceptable quality radiographs. Compliance with RHB 4.2.13.2 shall be considered met if the patient's exposure at skin entrance (ESE) is within the limits shown.

kVp	"D" Speed Film		"E" Speed Film	
	ESE	ESE Limits	ESE	ESE Limits
50	425-575	340-690	220-320	176-384
55	350-500	280-600	190-270	152-324
60	310-440	248-528	165-230	132-276
65	270-400	216-480	140-200	112-240
70	240-350	192-420	120-170	96-204
75	170-260	136-312	100-140	80-168
80	150-230	120-276	90-120	72-144
85	130-200	104-240	80-105	64-126
90	120-180	96-216	70-90	56-108
95	110-160	88-192	60-80	48-64
100	100-140	80-168	50-70	40-56

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### **Part IV - Appendix E**

#### **Automatic Exemptions for Sterile Fields**

Automatic exemptions to RHB 4.9.8.2.2 will be granted for the following procedures:

1. Myelograms
2. Arthrograms
3. Angiograms
4. Percutaneous nephrostomies
5. Biliary drainage procedures
6. Percutaneous cholangiograms
7. T-tube cholangiograms
8. Sinograms or fistulograms
9. Fluoroscopic biopsy procedures

## Part IV - Appendix F

## Minimum Criteria for Performance Tests.

The following items must be tested. Each item tested must include an indication of Pass/Fail, Compliant/ Non-compliant, as required by RHB 2.7.3.6. Items marked with an asterisk (\*) indicate that this item is not necessarily required to be tested by the vendor, but must be tested in order for the facility to meet the requirements of RHB 4.2.16.1. Each record of equipment performance testing shall be legible and include company name, service person name, and the date of the test.

## MEDICAL RADIOGRAPHIC (Including veterinary facilities)

Half-value layer (HVL) (4.3.5)

X-ray field/light field alignment (4.7.1.3, 4.8.4)

Exposure reproducibility (4.7.5)

mA/mAs linearity (4.7.7)

kVp accuracy (4.7.6)

Timer reproducibility and accuracy (4.7.4.2.6, 4.7.6)

X-ray beam/image receptor centering (4.7.1.7)

Collimator light illuminance (4.7.8)

Actual vs. indicated collimator field sizes (4.7.1.5, 4.8.6)

Positive beam limitation function, if operable (4.7.12)

Visual and audible indication of exposure (4.7.4.2.4)

Minimum field size (4.7.14)

Patient exposure at skin entrance, for most common exams performed at the facility (except veterinary facilities) (4.2.13.2)

Proper function of automatic exposure control devices, including AEC reproducibility, kV compensation, and minimum response time (4.7.4.2.5)

Grid uniformity and alignment (4.2.16.3)

Integrity of lead aprons, gloves, and other protective clothing (4.2.8)\*

Actual vs. Indicated Source to Image Distance (SID), for all clinically used SIDs (4.7.11)

Beam size(s) for fixed collimation, if applicable (4.7.3)

These items must be checked upon initial installation and after any maintenance or repair that could affect its status:

Adherence to the accepted shielding plan (4.4) (Visual inspection of layout of equipment, location of exposure button, location of film, etc.)

Minimum source to skin distance on mobile radiographic units (4.8.12)

Proper indication of multiple tubes on units so equipped (4.7.4.2.3)

## FLUOROSCOPIC

X-ray beam/Viewed image size comparison (4.9.2.2)

Exposure rate output measurement, using average techniques, using maximum techniques, and in high level exposure mode, if so equipped, in each mode routinely used (4.9.4)

Image intensifier interlock with unit in park position (4.9.2.1.2)

Primary barrier transmission (4.9.5)

Cumulative timer function (4.9.7.1)

Measurement of scattered radiation (4.9.8)

High contrast resolution and low contrast performance

Minimum source to skin distance, upon initial installation (4.9.1)

Spot film beam size (4.9.2.3.2)

Spot film beam centering (4.9.2.3.4)

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Spot film exposure reproducibility (4.9.9.3)  
Spot film mA/mAs linearity (4.7.7)  
Spot film timer reproducibility and accuracy (4.9.9.2, 4.7.6)  
Proper function of spot film automatic exposure control devices, including AEC reproducibility, kV compensation, and minimum response time (4.7.4.2.5)  
Half-value layer (HVL) (4.3.5)  
Cinefluorographic exposure rates (4.9.4)  
Integrity of lead aprons, gloves, and other protective clothing (4.2.8)\*  
Integrity of bucky slot cover shielding and lead drapes (4.2.8)\*  
Continuous indication of kV and mA during fluoroscopy (4.9.6)

### RADIATION THERAPY SIMULATION SYSTEMS

Half-value layer (HVL) (4.3.5)  
X-ray field/light field alignment (4.7.1.3)  
Exposure reproducibility (4.7.5)  
mA/mAs linearity (4.7.7)  
kVp accuracy (4.7.6)  
Timer reproducibility and accuracy (4.7.4.2.6, 4.7.6)  
X-ray beam/image receptor centering (4.7.1.7)  
Actual vs. indicated collimator field sizes (4.7.1.5)  
Positive beam limitation function, if operable (4.7.12)  
Visual and audible indication of exposure (4.5.4.2.4)  
Proper function of automatic exposure control devices, including AEC reproducibility, kV compensation, and minimum response time (4.7.4.2.5)  
Grid uniformity and alignment (4.2.16.3)  
Integrity of lead aprons, gloves, and other protective clothing (4.2.8)\*  
Actual vs. Indicated Source to Image Distance (SID), for all clinically used SIDs (4.7.11)  
Exposure rate output measurement, using average techniques, using maximum techniques, and in high level exposure mode, if so equipped, in each mode routinely used (4.9.4)  
Cumulative timer function (4.9.7.1)  
Measurement of scattered radiation (4.9.8)  
High contrast resolution and low contrast performance  
Minimum source to skin distance, upon initial installation (4.9.1)

These items must be checked upon initial installation and after any maintenance or repair that could affect its status: Adherence to the accepted shielding plan (4.4) (Visual inspection of layout of equipment, location of exposure button, location of film, etc.)

### COMPUTED TOMOGRAPHY (CT) (Including CT treatment planning systems used in radiation therapy)

Actual vs. indicated scan increment (4.11.1.6.3)  
Measurement of radiation output(patient dose) (CT treatment planning systems are exempt) (4.11.3.1)  
CT number calibration and constancy (4.11.3)  
High and low contrast resolution  
Precision (noise)  
Contrast scale  
Spot checks as specified by a Class IX Vendor (4.11.3.2)  
An area survey, upon initial installation  
Integrity of lead aprons, gloves, and other protective clothing (4.2.8)\*

These items must be checked upon initial installation and after any maintenance or repair that could affect its status: Adherence to the accepted shielding plan (4.4) (Visual inspection of layout of equipment, location of exposure button, location of film, etc.)

**DENTAL**

Half-value layer (HVL) (4.3.5)

Exposure reproducibility (4.5.5)

mA/mAs linearity (4.5.6)

kVp accuracy (4.5.7)

Timer reproducibility and accuracy (4.5.3.3, 4.5.7)

Visual and audible indication of exposure (4.5.4.2.4)

Patient exposure at skin entrance, bitewing and/or periapicals (4.2.13.2)

Mechanical support of tubehead (4.5.10)

Integrity of pass through interlocks (4.5.11.3)

Integrity of lead aprons, gloves, and other protective clothing (4.2.8)\*

These items must be checked upon initial installation and after any maintenance or repair that could affect its status:

Adherence to the accepted shielding plan, if applicable (4.4) (Visual inspection of layout of equipment, location of exposure button, location of film, etc.)

Minimum source to skin distance (4.5.1)

X-ray beam size (4.5.2)

Proper indication of multiple tubes on units so equipped (4.5.9)

NOTE: Cephalometric units are considered medical units by the Department, and are subject to the requirements for medical radiographic units.

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### PART V QUALITY STANDARDS AND CERTIFICATION REQUIREMENTS FOR FACILITIES PERFORMING MAMMOGRAPHY

#### RHB 5.1 Scope.

This Part establishes quality standards and certification requirements for facilities performing mammography to ensure that all mammography facilities are adequately and consistently evaluated for compliance with the standards provided.

5.1.1 Any person proposing to conduct a healing arts screening program shall not initiate such a program without prior approval of the Department. When requesting such approval, that person shall submit the information outlined in Appendix A of Part IV. If any information submitted to the Department becomes invalid or outdated, the Department shall be notified within 15 days. Approval to conduct a healing arts screening program shall be renewed on an annual basis if deemed necessary by the Department.

#### 5.1.2 Exemptions.

5.1.2.1 Mammography units used only during invasive interventions for localization or biopsy procedures are exempt from the requirements of this Part, except that such systems shall satisfy the criteria specified in RHB 5.25, and all parts to which RHB 5.25 refers.

5.1.2.2 Each mobile mammography facility based outside of South Carolina that operates in South Carolina and which has not been certified by the Department is exempt from the requirements of RHB 5.3 and RHB 5.6, provided that:

5.1.2.2.1 The mobile mammography facility is certified to perform mammography by FDA or other FDA-approved certifying agency at all times while conducting operations in South Carolina; and

5.1.2.2.2 The mobile mammography facility meets the requirements of RHB 5.28.

5.1.2.2.3 The mobile mammography facility shall comply with all other requirements in Part V.

#### RHB 5.2 Requirements for Certification.

A certificate issued by the Department is required for lawful operation of all mammography facilities subject to the provisions of this Part. Certificate holding facilities shall meet the requirements of RHB 5.6 and be accredited by an FDA-approved accreditation body.

#### RHB 5.3 Certificates.

5.3.1 In order to qualify for a certificate, a facility must apply to an FDA-approved accreditation body.

5.3.2 Following the Department's receipt of the accreditation body's decision to accredit a facility, the Department may issue a certificate to the facility, or renew an existing certificate, if the Department determines that the facility has satisfied the requirements for certification or recertification.

#### 5.3.3 Provisional Certificates.

5.3.3.1 A new facility is eligible to apply for a provisional certificate. The provisional certificate will enable the facility to perform mammography and to obtain the clinical images needed to complete the accreditation process.



5.3.3.2 Following the Department's receipt of the accreditation body's decision that a facility has submitted the required information, the Department may issue a provisional certificate to a facility upon determination that the facility has satisfied the requirements for provisional certification. A provisional certificate shall be effective for up to 6 months from the date of issuance. A provisional certificate cannot be renewed, but a facility may apply for a 90 day extension of the provisional certificate.

#### 5.3.4 Extension of Provisional Certificate.

5.3.4.1 To apply for a 90 day extension to a provisional certificate, a facility shall submit to its accreditation body a statement of what the facility is doing to obtain certification and evidence that there would be a significant adverse impact on access to mammography in the geographic area served if such facility did not obtain an extension.

5.3.4.2 Following the Department's receipt of the accreditation body's decision that a facility has submitted the required information, the Department may issue a 90 day extension of the provisional certificate to the facility upon determination that the facility has satisfied the requirements for the 90 day extension.

5.3.4.3 There can be no renewal of a provisional certificate beyond the 90 day extension.

5.3.5 Interim Notices. The Department may issue an interim notice of mammography certification by facsimile to a facility if a delay is anticipated in providing a certificate to the facility under one or more of the following circumstances:

5.3.5.1 The Department has been notified by an accreditation body that the facility meets the requirements for a provisional or provisional reinstatement certificate and delivery of the certificate may be delayed;

5.3.5.2 The Department has been notified by an accreditation body that the facility has completed accreditation or reaccreditation and delivery of the certificate to the facility may be delayed; or

5.3.5.3 The Department has been notified by an accreditation body that the facility has timely submitted an application for accreditation or reaccreditation but the completion of the accreditation process may extend beyond the expiration date of a facility's existing certificate through no fault of the facility.

5.3.5.4 An interim notice shall authorize the facility to perform mammography until the facility receives its certificate but in no case for more than 45 days. No more than one interim notice may be issued to a facility per application for certification.

#### RHB 5.4 Reinstatement Policy.

A previously certified facility that has allowed its certificate to expire, that has been refused a renewal of its certificate by FDA or the Department, or that has had its certificate suspended or revoked by FDA or the Department, may apply for reinstatement. If reinstated, the facility will be eligible for a provisional certificate.

5.4.1 Unless prohibited from reinstatement under 5.4.4, a facility applying for reinstatement shall:

5.4.1.1 Contact an FDA-approved accreditation body to determine the requirements for reapplication or accreditation;

5.4.1.2 Fully document its history as a previously provisionally certified or certified mammography facility, including the following information:

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5.4.1.2.1 Name and address of the facility under which it was previously provisionally certified or certified;

5.4.1.2.2 Name of previous owner/lessor;

5.4.1.2.3 FDA facility identification number assigned to the facility under its previous certification; and

5.4.1.2.4 Expiration date of the most recent FDA provisional certificate or certificate.

5.4.1.3 Justify application for reinstatement of accreditation by submitting to the accreditation body, a corrective action plan that details how the facility has corrected deficiencies that contributed to the lapse of, denial of renewal, or revocation of its certificate.

5.4.2 The Department may issue a provisional certificate to the facility if:

5.4.2.1 Following the Department's receipt of the accreditation body's decision that a facility has adequately corrected, or is in the process of correcting, pertinent deficiencies; and

5.4.2.2 The Department determines that the facility has taken sufficient corrective action since the lapse of, denial or revocation of its previous certificate.

5.4.3 After receiving the provisional certificate, the facility may lawfully resume performing mammography services while completing the requirements for certification.

5.4.4 If a facility's certificate was revoked on the basis of an act described in 5.24, no person who owned or operated that facility at the time the act occurred may own or operate a mammography facility within two years of the date of revocation.

### RHB 5.5 Appeals of Adverse Accreditation or Rec accreditation Decisions.

The appeals procedures described in this Part are available only for adverse accreditation or reaccreditation decisions that preclude certification by the Department. Department decisions to suspend or revoke certificates that are already in effect shall be conducted in accordance with RHB 5.24.

5.5.1 Upon learning that a facility has failed to become accredited or reaccredited, the Department will notify the facility that the Department is unable to certify that facility without proof of accreditation.

5.5.2 A facility that has been denied accreditation or reaccreditation is entitled to an appeals process from the FDA. A facility shall avail itself of the accreditation body's appeal process before requesting a review from the Department.

5.5.3 In the event that a facility, after availing itself of the accreditation body's appeal process, receives an adverse accreditation or reaccreditation decision, the facility may within 30 days after such adverse decision submit a request for review of the adverse accreditation decision to the Department.

5.5.4 Within 30 days following receipt of such written request, the Deputy Commissioner for Health Regulation shall review the facility's appeal.

5.5.5 A facility cannot perform mammography services while an adverse accreditation decision is being appealed.

## RHB 5.6 Fees.

5.6.1 The Department shall assess each certified mammography facility an annual certification fee of \$1000 in accordance with RHB 2.10. This certification fee includes one mammographic tube. The Department shall assess each certified mammography facility an additional fee of \$200 per mammographic tube for each additional tube.

5.6.2 The annual fee described in 5.6.1 applies to both fully and provisionally certified mammography facilities.

5.6.3 A new mammography facility issued an initial provisional certificate during the calendar year shall be issued a prorated fee for the remainder of the year, in accordance with RHB 2.10.

5.6.4 All fees shall be due and payable in accordance with RHB 2.10.

## 5.6.5 Follow-up Inspection Fees.

5.6.5.1 In the event that the Department deems a follow-up inspection necessary, an inspection fee of \$500 shall be assessed upon the completion of the follow-up inspection.

5.6.5.2 The follow-up inspection invoice shall be issued in conjunction with the follow-up inspection report.

5.6.5.3 Payment of the follow-up inspection fee shall be due within thirty (30) calendar days of the date of the follow-up inspection fee invoice.

## RHB 5.7 Personnel Requirements.

The following requirements apply to all personnel involved in any aspect of mammography, including the production, processing, and interpretation of mammograms and related quality assurance activities:

5.7.1 Interpreting Physicians. All physicians interpreting mammograms shall meet the following qualifications:

5.7.1.1 Initial Qualifications. Unless the exemption in 5.7.1.3.1 applies, before beginning to interpret mammograms independently, the interpreting physician shall:

5.7.1.1.1 Be a licensed physician to practice medicine in this State;

5.7.1.1.2 Be certified in diagnostic radiology by either the American Board of Radiology, the American Osteopathic Board of Radiology, or Royal College of Physicians and Surgeons of Canada or have had at least 3 months of documented formal training in the interpretation of mammograms and in topics related to mammography. The training shall include instruction in radiation physics, including radiation physics specific to mammography, radiation effects and radiation protection. The mammographic interpretation component shall be under the direct supervision of a physician who meets the requirements of 5.7.1 of this Part;

5.7.1.1.3 Have a minimum of sixty hours of documented medical education in mammography, which shall include instruction in the interpretation of mammograms and education in basic breast anatomy, pathology, physiology, technical aspects of mammography and quality assurance and quality control in mammography. All sixty of these hours shall be Category I and have at least fifteen hours of the

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Category I hours shall have been acquired within three years immediately prior to the date that the physician qualifies as an interpreting physician. Hours spent in residency specifically devoted to mammography will be considered as equivalent to Category I continuing medical education credits and will be accepted if documented in writing by the appropriate representative of the training institution; and

5.7.1.1.4 Unless the exemption in RHB 5.7.1.3.2 applies, have interpreted or multi-read at least 240 mammograms examinations within the 6 month period immediately prior to the date that the physician qualifies as an interpreting physician. The interpretation or multi-reading shall be under direct supervision of a qualified interpreting physician.

5.7.1.2 Continuing Experience and Education. All interpreting physicians shall maintain their qualifications by meeting the following requirements:

5.7.1.2.1 Following the second anniversary date of the end of the calendar quarter in which the requirements of 5.7.1.1 of this Part, were completed, the interpreting physician shall have interpreted or multi-read at least 960 mammographic examinations during the twenty-four months immediately preceding the date of the facility's annual MQSA inspection, or the last day of the calendar quarter preceding the inspection or any date in between the two. The facility will choose one of these dates to determine the 24-month period.

5.7.1.2.2 Following the third anniversary of the end of the calendar quarter in which the requirements of 5.7.1.1 of this Part were completed, the interpreting physician shall have taught or completed at least 15 Category I continuing medical education units in mammography during the thirty six months immediately preceding the date of the facility's annual MQSA inspection, or the last day of the calendar quarter preceding the inspection or any date in between the two. The facility shall choose one of these dates to determine the 36-month period. This training shall include at least six Category I continuing medical education credits in each mammographic modality used by the interpreting physician in his or her practice.

5.7.1.2.3 Before an interpreting physician may begin independently interpreting mammograms produced by a new mammographic modality, that is, a mammographic modality in which the physician has not previously been trained, the interpreting physician shall have at least eight hours of training in the new mammographic modality.

5.7.1.2.4 Units earned through teaching a specific course can be counted only once towards the fifteen units required by RHB 5.7.1.2.2, even if the course is taught multiple times during the previous 36 months.

### 5.7.1.3 Exemptions.

5.7.1.3.1 Those physicians who qualified as interpreting physicians under FDA's interim regulations prior to April 28, 1999, are considered to have met the initial requirements of 5.7.1.1 of this Part. These physicians may continue to interpret mammograms provided they continue to meet the requirement of 5.7.1 and the continuing experience and education requirements of 5.7.1.2.

5.7.1.3.1.1 Any physician added to a facility after April 28, 1999, must provide documentation of initial qualifications. This documentation must be maintained by the facility for Department review.

5.7.1.3.2 Physicians who have interpreted or multi-read at least 240 mammographic examinations under the direct supervision of an interpreting physician in any six month period during the last two years of a diagnostic radiology residency and who become appropriately board certified at the first allowable time, as defined by an eligible certifying body, are exempt from 5.7.1.1.4.

5.7.1.4 Reestablishing Qualifications. Interpreting physicians who fail to maintain the required continuing experience or continuing education requirements, shall reestablish their qualifications before resuming the independent interpretation of mammograms as follows:

5.7.1.4.1 Interpreting physicians who fail to meet the continuing experience requirements of 5.7.1.2.1 shall interpret or multi-read at least 240 mammographic examinations within six months or less under the direct supervision of an interpreting physician; or interpret or multi-read a sufficient number of mammographic examinations, under the direct supervision of an interpreting physician, to bring the physician's total up to 960 examinations from the prior twenty-four months, whichever is less. The interpretations required shall be done within the six months immediately prior to resuming independent interpretation.

5.7.1.4.2 Interpreting physicians who fail to meet the continuing education requirements of 5.7.1.2.2 shall obtain a sufficient number of additional Category I continuing medical education credits in mammography to bring their total up to the required fifteen credits in the previous thirty-six months before resuming independent interpretation.

5.7.2 Radiologic Technologists. All mammographic examinations shall be performed by radiologic technologists who meet the following general requirements, mammography requirements, and continuing education requirements:

5.7.2.1 General Requirements.

5.7.2.1.1 Be registered in active status with the American Registry of Radiologic Technologists in the field of radiography; and

5.7.2.1.2 All provisions of RHB 4.2.3 apply to the operators of mammography equipment.

5.7.2.2 Mammography Requirements. Have, prior to April 28, 1999, qualified as a radiologic technologist under FDA's interim regulations or completed at least forty contact hours of documented training specific to mammography under the supervision of a qualified instructor. The hours of documented training shall include, but not necessarily be limited to:

5.7.2.2.1 Training in breast anatomy and physiology, positioning and compression, quality assurance/quality control techniques, imaging of patients with breast implants;

5.7.2.2.2 The performance of a minimum of twenty- five examinations under the direct supervision of an individual qualified under 5.7.2; and

5.7.2.2.3 At least eight hours of training in each mammography modality to be used by the technologist in performing mammography exams.

5.7.2.3 Continuing Education Requirements.

5.7.2.3.1 Following the third anniversary date of the end of the calendar quarter in which the requirements of 5.7.2.1 and 5.7.2.2 were completed, the radiologic technologist who performs mammography shall have taught or completed at least fifteen continuing education units in mammography during the thirty-six months immediately preceding the date of the facility's annual mammography inspection, or the last day of the calendar quarter preceding the inspection or any day in between the two. The facility will choose one of these dates to determine the 36 month period.

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5.7.2.3.2 Units earned through teaching a specific course can be counted only once towards the fifteen hours of continuing education requirements required in 5.7.2.3.1, even if the course is taught multiple times during the previous 36 months.

5.7.2.3.3 At least six of the continuing education units required in 5.7.2.3.1 shall be related to each mammographic modality used by the technologist.

5.7.2.3.4 Requalification. Radiologic technologists who fail to meet the continuing education requirements of 5.7.2.3.1, shall obtain a sufficient number of continuing education units in mammography to bring their total up to at least 15 in the previous three years, at least six of which shall be related to each modality used by the technologist in mammography. The technologist shall not resume performing unsupervised mammography examinations until the continuing education requirements are completed.

5.7.2.3.5 Before a radiologic technologist may begin independently performing mammography examinations using a mammographic modality other than one of those for which the technologist received training under 5.7.2.3.3, the technologist shall have at least eight hours of continuing education units in the new modality.

5.7.2.3.6 Programs, courses or other activities intended to meet the requirement for initial, or requalification, mammography training or continuing education in mammography shall be approved by the Department.

5.7.2.3.7 Completion of initial or requalification mammography training and continuing education in mammography shall be verified to the Department.

### 5.7.2.4 Continuing Experience Requirements.

5.7.2.4.1 Following the second anniversary date of the end of the calendar quarter in which the requirements of 5.7.2.1 and 5.7.2.2 were completed or of April 28, 1999, whichever is later, the radiologic technologist shall have performed a minimum of 200 mammography examinations during the twenty-four months immediately preceding the date of the facility's annual mammography inspection, or the last day of the calendar quarter preceding the inspection or any date in between the two. The facility will choose one of these dates to determine the 24-month period.

5.7.2.4.2 Requalification. Radiologic technologists who fail to meet the continuing experience requirements of 5.7.2.4.1 shall perform a minimum of twenty five mammography examinations under the direct supervision of a qualified radiologic technologist before resuming the performance of unsupervised mammography.

5.7.3 Medical Physicists. All medical physicists conducting surveys of mammography facilities and providing oversight of the facility quality assurance program shall meet the following:

5.7.3.1 Initial Qualifications. The medical physicist must be approved by the Department as a Class IX vendor, prior to providing or offering to provide services, as required in 2.5.6.9. Unless the alternative initial qualifications in RHB 5.7.3.2 apply, the medical physicist must be certified in diagnostic radiological physics or radiological physics by either the American Board of Radiology (ABR), the American Board of Medical Physics (ABMP) or another FDA approved certifying board;

5.7.3.1.1 Have a masters degree or higher in a physical science from an accredited institution, with no less than twenty semester hours or equivalent (e.g., thirty quarter hours) of college undergraduate or graduate level physics;

5.7.3.1.2 Have twenty contact hours of documented specialized training in conducting surveys of mammography facilities; and

5.7.3.1.3 Have the experience of conducting surveys of at least one mammography facility and a total of at least ten mammography units. No more than one survey of a specific unit within a period of sixty days can be counted towards the total mammography unit survey requirement. After April 28, 1999, experience conducting surveys shall be acquired under the direct supervision of a medical physicist who meets all the requirements of 5.7.3.1 and 5.7.3.3.

5.7.3.2 Alternative Initial Qualifications.

5.7.3.2.1 Have qualified as a medical physicist under FDA's interim-regulations and retained that qualification by maintenance of the active status of any licensure, approval or certification required;

5.7.3.2.2 Prior to April 28, 1999, obtained a bachelor's degree or higher in a physical science from an accredited institution with no less than ten semester hours or equivalent of college undergraduate or graduate level physics;

5.7.3.2.3 Prior to April 28, 1999, have forty contact hours of documented specialized training in conducting surveys of mammography facilities; and

5.7.3.2.4 Prior to April 28, 1999, have the experience of conducting surveys of at least one mammography facility and a total of at least twenty mammography units. No more than one survey of a specific unit within a period of sixty days can be counted towards the total mammography survey requirement. The training and experience requirements shall be met after fulfilling the degree requirement.

5.7.3.3 Continuing Education and Experience.

5.7.3.3.1 Continuing Education. Following the third anniversary date of the end of the calendar quarter in which the requirements of 5.7.3.1 and 5.7.3.2 were completed, the medical physicist shall have taught, or completed, at least fifteen continuing education units in mammography during the thirty six-months immediately preceding the date of the facility annual inspection, or the last day of the calendar quarter preceding the inspection or any date in between the two. The facility shall choose one of these dates to determine the 36-month period. This continuing education shall include hours of training appropriate to each mammography modality evaluated by the medical physicist during his or her surveys or oversight of quality assurance programs. Units earned through teaching a specific course can be counted only once towards the required fifteen continuing education units in a 36-month period, even if the course is taught multiple times during the thirty-six months.

5.7.3.3.2 Continuing Experience. Following the second anniversary date of the end of the calendar quarter in which the requirements of 5.7.3.1 and 5.7.3.2 were completed or of April 28, 1999, whichever is later, the medical physicist shall have surveyed at least two mammography facilities and a total of at least six mammography units during the twenty-four months immediately preceding the date of the facility's annual mammography inspection, or the last day of the calendar quarter preceding the inspection or any date in between the two. The facility shall choose one of these dates to determine the 24-month period. No more than one survey of a specific facility within a 10-month period or a specific unit within a period of sixty days can be counted towards the total mammography unit survey requirement.

5.7.3.3.3 Before a medical physicist may begin independently performing mammographic surveys of a new mammographic modality, that is, a mammographic modality other than one for which the physicist received training to qualify under 5.7.3.1 and 5.7.3.2, the physicist shall receive at least eight hours of training in surveying units of the new mammographic modality.

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5.7.3.4 Reestablishing Qualifications. Medical physicists who fail to maintain the required continuing qualifications of 5.7.3.3 may not perform the MQSA surveys without the supervision of a qualified medical physicist. Before independently surveying another facility, medical physicists shall reestablish their qualifications, as follows:

5.7.3.4.1 Medical physicists who fail to meet the continuing educational requirements of 5.7.3.3.1 shall obtain a sufficient number of continuing education units to bring their total units up to the required fifteen in the previous three years.

5.7.3.4.2 Medical physicists who fail to meet the continuing experience requirement of 5.7.3.3.2 shall complete a sufficient number of surveys under the direct supervision of a medical physicist who meets the qualification of 5.7.3.1 and 5.7.3.3 to bring their total surveys up to the required two facilities and six units in the previous twenty-four months. No more than one survey of a specific unit within a period of sixty days can be counted towards the total mammography unit survey requirement.

5.7.4 Retention of Personnel Records. Facilities shall maintain records to document the qualifications of all personnel who worked at the facility as interpreting physicians, radiologic technologists, or medical physicists. These records must be available for review by the Department. Records of personnel no longer employed by the facility should not be discarded until the next annual inspection has been completed and the Department has determined that the facility is in compliance with the MQSA/State personnel requirements of this Part.

### RHB 5.8 Equipment Requirements.

The equipment requirements of this Part are intended to ensure that mammography equipment is capable of producing quality mammograms over the full range of clinical conditions.

5.8.1 Prohibited Equipment. Xeromammography equipment shall not be used for mammography procedures. Radiographic equipment designed for general purpose or special non-mammography procedures shall not be used for mammography. This prohibition includes systems that have been modified or equipped with special attachments for mammography. This requirement supersedes the implied acceptance of such systems in 21 CFR, Section 1020.31(f)(3).

5.8.2 General. Only special purpose equipment designed for mammography shall be specifically used for mammography and shall be certified pursuant to 21 CFR, Section 1010.2 as meeting the applicable requirements of 21 CFR, 1020.30, effective as of April 1, 1997.

#### 5.8.3 Motion of Tube-Image Receptor Assembly.

5.8.3.1 The assembly shall be capable of being fixed in any position where it is designed to operate. Once fixed in any such position, it shall not undergo unintended motion.

5.8.3.2 The mechanism ensuring compliance with RHB 5.8.3.1 shall not fail in the event of power interruption.

#### 5.8.4 Image Receptor Sizes.

5.8.4.1 Systems using screen-film image receptors shall provide, at a minimum, for operation with image receptors of 18 x 24 centimeters (cm) and 24 x 30 cm.

5.8.4.2 Systems using screen-film image receptors shall be equipped with moving grids matched to all image receptor sizes provided.



5.8.4.3 Systems used for magnification procedures shall be capable of operation with the grid removed from between the source and image receptor.

5.8.5 Beam Limitation and Light Fields.

5.8.5.1 All systems shall have beam-limiting devices that allow the useful beam to extend to or beyond the chest wall edge of the image receptor.

5.8.5.2 For any mammography system with a light beam that passes through the x-ray beam limiting device, the light shall provide an average illumination of not less than 160 lux (15 footcandles) at 100 cm or the maximum source-image receptor distance (SID), whichever is less.

5.8.6 Magnification.

5.8.6.1 Systems used to perform noninterventional problem solving procedures shall have radiographic magnification capability available for use by the operator.

5.8.6.2 Systems used for magnification procedures shall provide, at a minimum, at least one magnification value within the range of 1.4 to 2.0.

5.8.7 Focal Spot Selection.

5.8.7.1 When more than one focal spot is provided, the system shall indicate, prior to exposure, which focal spot is selected.

5.8.7.2 When more than one target material is provided, the system shall indicate, prior to exposure, the preselected target material.

5.8.7.3 When the target material and/or focal spot is selected by a system algorithm that is based on the exposure or on a test exposure, the system shall display, after the exposure, the target material and/or focal spot actually used during the exposure.

5.8.8 Compression. All mammography systems shall incorporate a compression device that shall be used for all routine projections and for all projections except when necessity requires imaging without compression.

5.8.8.1 Application of Compression. Effective October 28, 2002, each system shall provide:

5.8.8.1.1 An initial power-driven compression activated by hands-free controls operable from both sides of the patient; and

5.8.8.1.2 Fine adjustment compression controls operable from both sides of the patient.

5.8.8.2 Compression Paddle:

5.8.8.2.1 Systems shall be equipped with different sized compression paddles that match the sizes of all full-field image receptors provided for the system. Compression paddles for special purposes, including those smaller than the full size of the image receptor (for "spot compression") may be provided. Such compression paddles for special purposes are not subject to the requirements of subsections 5.8.8.2.4 and 5.8.8.2.5 of this Section.

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5.8.8.2.2 Except as provided in subsection 5.8.8.2.3 of this Part, the compression paddle shall be flat and parallel to the breast support table and shall not deflect from parallel by more than 1.0 cm at any point on the surface of the compression paddle when compression is applied.

5.8.8.2.3 Equipment intended by the manufacturer's design to not be flat and parallel to the breast support table during compression shall meet the manufacturer's design specifications and maintenance requirements.

5.8.8.2.4 The chest wall edge of the compression paddle shall be straight and parallel to the edge of the image receptor.

5.8.8.2.5 The chest wall edge may be bent upward to allow for patient comfort but shall not appear on the image.

### 5.8.9 Technique Factor Selection and Display.

5.8.9.1 Manual selection of milliAmpere seconds (mAs) or at least one of its component parts (milliAmpere (mA) and /or time) shall be available.

5.8.9.2 The technique factors (peak tube potential in kilovolt (kV) and either tube current in mA and exposure time in seconds or the product of tube current and exposure time in mAs) to be used during an exposure shall be indicated before the exposure begins, except when automatic exposure controls (AEC) are used, in which case the technique factors that are set prior to the exposure shall be indicated.

5.8.9.3 Following AEC mode use, the system shall indicate the actual kiloVoltage peak (kVp) and mAs used during the exposure. The mAs may be displayed as mA and time.

### 5.8.10 Automatic Exposure Control.

5.8.10.1 Each screen-film system shall provide an AEC mode that is operable in all combinations of equipment configuration provided, e.g., grid, nongrid, magnification, nonmagnification and various target-filter combinations.

5.8.10.2 The positioning or selection of the detector shall permit flexibility in the placement of the detector under the target tissue.

5.8.10.2.1 The size and available positions of the detector shall be clearly indicated at the x-ray input surface of the breast compression paddle.

5.8.10.2.2 The selected position of the detector shall be clearly indicated.

5.8.10.3 The system shall provide means for the operator to vary the selected optical density from the normal (zero) setting.

5.8.11 X-ray Film. The facility shall use x-ray film for mammography that has been designated by the film manufacturer as appropriate for mammography.

5.8.12 Intensifying Screens. The facility shall use intensifying screens for mammography that have been designated by the screen manufacturer as appropriate for mammography and shall use film that is matched to the screen's spectral output as specified by the manufacturer.

5.8.13 Film processing solutions. When processing mammography films, the facility shall use chemical solutions that are capable of developing the film used by the facility in a manner equivalent to the minimum requirements specified by the film manufacturer.

5.8.14 Lighting. The facility shall make special lights for film illumination, i.e., hot-lights, capable of producing light levels greater than that provided by the view box, available to the interpreting physicians.

5.8.15 Film Masking Devices. Facilities shall ensure that filmmasking devices that can limit the illumination area to a region equal to or smaller than the exposed portion of the film are available to all interpreting physicians.

**RHB 5.9 Medical Records and Mammography Reports.**

5.9.1 Contents and Terminology. Each facility shall prepare a written report of the results of each mammography examination performed under its certificate. The mammography report shall include the following information:

5.9.1.1 The name of the patient and an additional patient identifier;

5.9.1.2 Date of examination;

5.9.1.3 The name of the interpreting physician who interpreted the mammogram;

5.9.1.4 Overall final assessment of findings, classified in one of the following categories:

5.9.1.4.1 "Negative." Nothing to comment upon (if the interpreting physician is aware of clinical findings or symptoms, despite the negative assessment, these shall be explained);

5.9.1.4.2 "Benign." Also a negative assessment;

5.9.1.4.3 "Probably Benign." Finding(s) has a high probability of being benign;

5.9.1.4.4 "Suspicious." Finding(s) without all the characteristic morphology of breast cancer but indicating a definite probability of being malignant;

5.9.1.4.5 "Highly suggestive of malignancy." Finding(s) has a high probability of being malignant,

5.9.1.5 In cases where no final assessment category can be assigned due to incomplete work-up, "Incomplete: Need additional imaging evaluation" shall be assigned as an assessment and reasons why no assessment can be made shall be stated by the interpreting physician; and

5.9.1.6 Recommendations made to the health care provider about what additional actions, if any, should be taken. All clinical questions raised by the referring health care provider shall be addressed in the report to the extent possible, even if the assessment is negative or benign.

5.9.2 Communication of Mammography Results to the Patient. Each facility shall send each patient a summary of the mammography report written in lay terms within 30 days of the mammographic examination. If assessments are "Suspicious" or "Highly suggestive of malignancy", the facility shall make reasonable attempts to ensure that the results are communicated to the patient as soon as possible.

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5.9.2.1 Patients who do not name a health care provider to receive the mammography report shall be sent the report described in RHB 5.9.1 within 30 days, in addition to the written notification of results in lay terms.

5.9.2.2 Each facility that accepts patients who do not have a health care provider shall maintain a system for referring such patients to a health care provider when clinically indicated.

5.9.3 Communication of Mammography Results to Health Care Providers. When the patient has a referring health care provider or the patient has named a health care provider, the facility shall:

5.9.3.1 Provide a written report of the mammography examination, including the items listed in subsection 5.9.1 of this Section, to that health care provider as soon as possible, but no later than 30 days after the date of the mammography examinations; and

5.9.3.2 If the assessment is "Suspicious" or "Highly suggestive of malignancy," make reasonable attempts to communicate with the health care provider as soon as possible, or if the health care provider is unavailable, to a responsible designee of the health care provider.

5.9.4 Record Keeping. Each facility that performs mammograms:

5.9.4.1 Shall, except as provided in RHB 5.9.4.2, maintain mammography films and reports in a permanent medical record of the patient for a period of not less than 5 years, or not less than 10 years if no additional mammograms of the patient are performed at the facility;

5.9.4.2 Shall upon request by, or on behalf of, the patient permanently or temporarily transfer the original mammograms and copies of the patient's reports to a medical institution, or to a physician or health care provider of the patient, or to the patient directly.

5.9.4.3 Any fee charged to the patient for providing the services in RHB 5.9.4 shall not exceed the documented costs associated with this service.

5.9.5 Mammographic Image Identification. Each mammographic image shall have the following information indicated on it in a permanent, legible, and unambiguous manner and placed so as not to obscure anatomic structures:

5.9.5.1 Name of patient and an additional patient identifier.

5.9.5.2 Date of examination.

5.9.5.3 View and laterality. This information shall be placed on the image in a position near the axilla. Standardized codes specified by the accreditation body shall be used to identify view and laterality.

5.9.5.4 Facility name and location. At a minimum, the location shall include the city, state, and zip code of the facility.

5.9.5.5 Technologist identification.

5.9.5.6 Cassette/screen identification.

5.9.5.7 Mammography unit identification, if there is more than one unit in the facility.

## RHB 5.10 Quality Assurance Requirements.

Each facility shall establish and maintain a quality assurance program to ensure the safety, reliability, clarity, and accuracy of mammography services performed at the facility.

5.10.1 Responsible Individuals. Responsibility for the quality assurance program and for each of its elements shall be assigned to individuals who are qualified for their assignments and who shall be allowed adequate time to perform these duties.

5.10.1.1 Lead Interpreting Physician. The facility shall identify a lead interpreting physician who shall have the general responsibility of ensuring that the quality assurance program meets all requirements of this Part. No other individual shall be assigned or shall retain responsibility for quality assurance tasks unless the lead interpreting physician has determined that the individual's qualifications for, and performance of, the assignment are adequate.

5.10.1.2 Interpreting Physicians. All physicians interpreting mammograms for the facility shall:

5.10.1.2.1 Follow the facility procedures for corrective action when the images that they are asked to interpret are of poor quality; and

5.10.1.2.2 Participate in the facility's medical outcomes audit program.

5.10.1.3 Medical Physicist. Each facility shall have the services of a medical physicist available to survey mammography equipment and oversee the equipment-related quality assurance practices of the facility. At a minimum, the medical physicist(s) shall be responsible for performing the surveys and mammography equipment evaluations and providing the facility with the reports described in RHB 5.12 and RHB 5.13.

5.10.1.4 Quality Control Technologist. Responsibility for all individual tasks within the quality assurance program not assigned to the lead interpreting physician or the medical physicist shall be assigned to a quality control technologist(s). The tasks are to be performed by the quality control technologist or by other personnel qualified to perform the tasks. When other personnel are utilized for these tasks, the quality control technologist shall ensure that the tasks are completed in such a way as to meet the requirements of RHB 5.11.

## 5.10.2 Quality Assurance Records.

5.10.2.1 The lead interpreting physician, quality control technologist and medical physicist shall ensure that records concerning employee qualifications to meet assigned quality assurance tasks, mammography technique and procedures, quality control (including monitoring data, problems detected by analysis of that data, corrective actions and the effectiveness of the corrective actions), safety, and protection are properly maintained and updated.

5.10.2.2 These quality control records shall be kept for each test specified in RHB 5.11 until the next annual inspection has been completed and the Department has determined that the facility is in compliance with the quality assurance requirements or until the test has been performed two additional times at the required frequency, whichever is longer.

5.10.2.3 A report of the medical physicist's test results with numerical values shall be submitted to the Department annually as required by RHB 5.12.

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### RHB 5.11 Equipment Quality Assurance Tests.

5.11.1 Daily quality control tests. Film processors used to develop mammograms shall be adjusted and maintained to meet the technical development specifications for the mammography film in use. A processor performance test shall be performed on each day that examinations are performed before any clinical films are processed that day. The test shall include an assessment of base plus fog density, mid-density, and density difference, using the mammography film used clinically at the facility.

5.11.1.1 The base plus fog density shall be within plus 0.03 of the established operating level.

5.11.1.2 The mid-density shall be within plus or minus 0.15 of the established operating level.

5.11.1.3 The density difference shall be within plus or minus 0.15 of the established operating level.

5.11.1.4 The solution temperature control limits shall be plus or minus 1.0 degree F.

5.11.2 Weekly Quality Control Tests. Facilities with screen-film systems shall perform a phantom image quality evaluation test, using an FDA-approved phantom, at least weekly.

5.11.2.1 The optical density of the film at the center of an image of the phantom shall be at least 1.20 when exposed under a typical clinical condition.

5.11.2.2 The optical density of the film at the center of the phantom image shall not change by more than plus or minus 0.20 from the established operating level.

5.11.2.3 The phantom image shall achieve at least the minimum score established by the accreditation body.

5.11.2.4 The density difference between the background of the phantom and an added test object, used to assess image contrast, shall be measured and shall not vary by more than plus or minus 0.05 from the established operating level.

5.11.3 Quarterly Quality Control Tests. Facilities with screen-film systems shall perform the following quality control tests at least quarterly:

5.11.3.1 Fixer Retention in Film. The residual fixer shall be no more than 5 micrograms per square cm.

5.11.3.2 Repeat Analysis. If the total repeat or reject rate changes from the previously determined rate by more than 2.0 percent of the total films included in the analysis, the reason(s) for the change shall be determined. Any corrective actions shall be recorded and the results of these corrective actions shall be assessed.

5.11.4 Semiannual Quality Control Tests. Facilities with screen-film systems shall perform the following quality control tests at least semiannually:

5.11.4.1 Darkroom Fog. The optical density attributable to darkroom fog shall not exceed 0.05 when a mammography film of the type used in the facility, which has a mid-density of no less than 1.20, is exposed to typical darkroom conditions for 2 minutes while such film is placed on the counter top emulsion side up. If the darkroom has a safelight used for mammography film, it shall be on during this test.

5.11.4.2 Screen-Film Contact. Testing for screen-film contact shall be conducted using 40 mesh copper screen. All cassettes used in the facility for mammography shall be tested.

5.11.4.3 Compression Device Performance. The maximum compression force for the initial power drive shall be between 111 newtons (25 pounds) and 209 newtons (45 pounds).

5.11.5 Annual Quality Control Tests. Facilities with screen-film systems shall perform the following quality control tests at least annually:

5.11.5.1 Automatic Exposure Control Performance.

5.11.5.1.1 The AEC shall be capable of maintaining film optical density within plus or minus 0.30 of the mean optical density when the thickness of a homogeneous material is varied over a range of 2 to 6 cm and the kVp is varied appropriately for such thicknesses over the kVp range used clinically in the facility. If this requirement cannot be met, a technique chart shall be developed showing appropriate techniques (kVp and density control settings) for different breast thicknesses and compositions that shall be used so that optical densities within plus or minus 0.30 of the average under phototimed conditions can be produced.

5.11.5.1.2 After October 28, 2002, the AEC shall be capable of maintaining film optical density within plus or minus 0.15 of the mean optical density when thickness of a homogeneous material is varied over a range of 2 to 6 cm and the kVp is varied appropriately for such thicknesses over the kVp range used clinically in the facility.

5.11.5.1.3 The optical density of the film in the center of the phantom image shall not be less than 1.20.

5.11.5.2 Kilovoltage Peak Accuracy and Reproducibility. The kVp shall be accurate within plus or minus 5 percent of the indicated or selected kVp at:

5.11.5.2.1 The lowest clinical kVp that can be measured by a kVp test device;

5.11.5.2.2 The most commonly used clinical kVp;

5.11.5.2.3 The highest available clinical kVp; and

5.11.5.2.4 At the most commonly used clinical setting of kVp, the coefficient of variation of reproducibility of the kVp shall be equal to or less than 0.02. The kVp shall be checked annually or upon new x-ray tube installation.

5.11.5.3 Focal Spot Condition. Until October 28, 2002, focal spot condition shall be evaluated by measuring focal spot dimensions or by determining system resolution. After October 28, 2002, facilities shall evaluate focal spot condition only by determining the system resolution. For focal spot dimensions, the measured values of the focal spot length (dimension parallel to the anode cathode axis) and width (dimension perpendicular to the anode cathode axis) shall be within the following tolerance limits:

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### Focal Spot Tolerance Limit

Nominal Focal Spot Size (mm)	Maximum Width(mm)	Measured Dimensions Length(mm)
0.10	0.15	0.15
0.15	0.23	0.23
0.20	0.30	0.30
0.30	0.45	0.65
0.40	0.60	0.85
0.60	0.90	1.30

#### 5.11.5.3.1 System Resolution.

5.11.5.3.1.1 Each x-ray system used for mammography, in combination with the mammography screen-film combination used in the facility, shall provide a minimum resolution of 11 cycles per millimeter (mm)(line-pairs/mm) when a high contrast resolution bar test pattern is oriented with the bars perpendicular to the anode cathode axis, and a minimum resolution of 13 line-pairs/mm when the bars are parallel to that axis.

5.11.5.3.1.2 The bar pattern shall be placed 4.5 cm above the breast support surface, centered with respect to the chest wall edge of the image receptor, and with the edge of the pattern within 1 cm of the chest wall edge of the image receptor.

5.11.5.3.1.3 When more than one target material is provided, the measurement shall be made using the appropriate focal spot for each target material.

5.11.5.3.1.4 When more than one source-image receptor distance is provided, the test shall be performed at the SID most commonly used clinically

5.11.5.3.1.5 Test kVp shall be set at the value used clinically by the facility for a standard breast and shall be performed in the AEC mode, if available. If necessary, a suitable absorber may be placed in the beam to increase exposure times. The screen-film cassette combination used by the facility shall be used to test for this requirement and shall be placed in the normal location used for clinical procedures.

5.11.5.3.2 Focal Spot Dimensions. Measured values of the focal spot length (dimension parallel to the anode cathode axis) and width (dimension perpendicular to the anode cathode axis) shall be within the tolerance limits specified in this Part. The focal spot shall be checked annually or upon new x-ray tube installation.

5.11.5.4 Exposure Reproducibility. The coefficient of variation of exposure shall not exceed 0.05 for any specific combination of selected technique factors. This requirement shall be deemed to have been met if, when four exposures are made at identical technique factors, the value of the average exposure ( $\bar{E}$ ) is greater than or equal to 5 times the maximum exposure ( $E_{max}$ ) minus the minimum exposure ( $E_{min}$ ):  $\bar{E} \geq 5(E_{max} - E_{min})$ . This requirement shall be checked annually or upon a new mammography x-ray unit or a new tube installation.



5.11.5.5 Timer Reproducibility. The coefficient of variation of the timer shall not exceed 0.05. This requirement shall be deemed to have been met if, with a selected timer setting, the average exposure period ( $\bar{T}$ ) shall be greater than or equal to 5 times the maximum exposure period ( $T_{max}$ ) minus the minimum exposure period ( $T_{min}$ ) when 4 timer tests are performed:  $\bar{T} \geq 5 (T_{max} - T_{min})$ . This requirement shall be checked annually or upon a new mammography x-ray unit or a new tube installation.

5.11.5.6 Timer Accuracy. Deviation of the selected time setting from indicated time values shall not exceed the limits specified for that system by its manufacturer. In the absence of manufacturer's specifications, the deviation shall not exceed 10% of the indicated time value. This requirement shall be checked annually or upon a new mammography x-ray unit or a new tube installation.

5.11.5.7 Linearity. The following requirements apply when the equipment is operated on a power supply as specified by the manufacturer for any fixed x-ray tube potential within the range of 40 percent to 100 percent of the maximum rated:

5.11.5.7.1 Equipment having independent selection of x-ray tube current (mA). The average ratios of exposure to the indicated milliAmpere-seconds product (C/kg/mAs (or mR/mAs)) obtained at any tube current settings shall not differ by more than 0.10 times their sum. This is:  $[X1 - X2] < 0.10 (X1 + X2)$ ; where X1 and X2 are the average C/kg/mAs (or mR/mAs) values obtained at any two tube current settings.

5.11.5.7.2 Equipment having a combined x-ray tube current-exposure time product (mAs) selector, but not a separate tube current (mA) selector. The average ratios of exposure to the indicated milliAmpere-seconds product (C/kg/mAs (or mR/mAs)) obtained at any two mAs selector settings shall not differ by more than 0.10 times their sum. This is  $[X1 - X2] < 0.10 (X1 + X2)$ ; where X1 and X2 are the average C/kg/mAs (or mR/mAs) values obtained at any two mAs selector settings.

5.11.5.7.3 Measuring Compliance. Determination of compliance shall be based on 4 exposures, at each of the two settings. The two settings may include any two focal spot sizes provided that neither focal spot size is equal to or less than .45 millimeter, in which case the two settings shall be restricted to the same focal spot size. For purposes of this requirement, focal spot size is the nominal focal spot size specified by the tube manufacturer. Linearity shall also be checked annually or upon new x-ray tube installation.

5.11.5.8 Beam Quality and Half-Value Layer (HVL). For mammography systems operating at x-ray tube potentials of less than 50 kVp, the HVL in millimeters of aluminum of the useful beam shall be equal to or greater than the product of the measured tube potential in kilovolts multiplied by 0.01. The half-value layer shall be measured with the compression device in the beam and shall be measured at the same tube potential used in Appendix A of this Part, Mammography Dose Measurement Protocol and Appendix B of this Part, Mammography Phantom Image Evaluation. The HVL shall be checked annually and after repairs to the system have been made that could affect the filtration or upon new x-ray tube installation.

5.11.5.9 Breast Entrance Air Kerma and AEC Reproducibility. The coefficient of variation for both air kerma and mAs shall not exceed 0.05.

5.11.5.10 Dosimetry. The average glandular dose delivered during a single craniocaudal view of a phantom simulating a standard breast shall not exceed 3.0 milligray (Gy) (0.3 rad) per exposure. The dose shall be determined with technique factors and conditions used clinically for a standard breast. The average glandular dose shall be checked annually or upon new tube installation.

5.11.5.11 X-ray Field/Light Field/Image Receptor/Compression Paddle Alignment.

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5.11.5.11.1 All systems shall have beam-limiting devices that allow the entire chest wall edge of the x-ray field to extend to the chest wall edge of the image receptor and provide means to assure that the x-ray field does not extend beyond any edge of the image receptor by more than 2 percent of the SID. This requirement is for both large and small cassettes sizes.

5.11.5.11.2 If a light field that passes through the x-ray beam limitation device is provided, it shall be aligned with the x-ray field so that the total of any misalignment of the edges of the light field and the x-ray field along either the length or the width of the visually defined field at the plane of the breast support surface shall not exceed 2 percent of the SID.

5.11.5.11.3 The chest wall edge of the compression paddle shall not extend beyond the chest wall edge of the image receptor by more than one percent of the SID when tested with the compression paddle placed above the breast support surface at a distance equivalent to standard breast thickness. The shadow of the vertical edge of the compression paddle shall not be visible on the image.

5.11.5.12 Uniformity of Screen Speed. Uniformity of screen speed of all the cassettes in the facility shall be tested and the difference between the maximum and minimum optical densities shall not exceed 0.30. Screen artifacts shall also be evaluated during this test.

5.11.5.13 System Artifacts. System artifacts shall be evaluated with a high-grade, defect-free sheet of homogeneous material large enough to cover the mammography cassette and shall be performed for all cassette sizes used in the facility using a grid appropriate for the cassette size being tested. System artifacts shall also be evaluated for all available focal spot sizes and target filter combinations used clinically.

### 5.11.5.14 Radiation Output.

5.11.5.14.1 The system shall be capable of producing a minimum output of 4.5 Gy air kerma per second (513 mR per second) when operating at 28 kVp in the standard mammography (moly/moly) mode at any SID where the system is designed to operate and when measured by a detector with its center located 4.5 cm above the breast support surface with the compression paddle in place between the source and the detector. After October 28, 2002, the system, under the same measuring conditions, shall be capable of producing a minimum output of 7.0 Gy air kerma per second (800 mR per second) when operating at 28 kVp in the standard (moly/moly) mammography mode at any SID where the system is designed to operate.

5.11.5.14.2 The system shall be capable of maintaining the required minimum radiation output averaged over a 3.0 second period.

5.11.5.15 Decompression. If the system is equipped with a provision for automatic decompression after completion of an exposure or interruption of power to the system, the system shall be tested to confirm that it provides:

5.11.5.15.1 An override capability to allow maintenance of compression;

5.11.5.15.2 A continuous display of the override status; and

5.11.5.15.3 A manual emergency compression release that can be activated in the event of power or automatic release failure.

5.11.6 The quality assurance requirements of 4.2.18 and film processing requirements of 4.2.19.2 shall be met except where otherwise mentioned.

5.11.7 Quality Control Tests-Other Modalities. For systems with image receptor modalities other than screen-film, the quality assurance program shall be substantially the same as the quality assurance program recommended by the image receptor manufacturer.

5.11.8 Mobile Units. The facility shall verify that mammography units used to produce mammograms at more than one location meet the requirements in RHB 5.11.1 through 5.11.7. In addition, at each examination location, before any examinations are conducted, the mobile mammography system shall be tested using the mammography phantom image evaluation to establish the adequacy of the image quality produced by the unit.

5.11.9 Use of Test Results.

5.11.9.1 After completion of the tests specified in RHB 5.11.1 through 5.11.8, the facility shall compare the test results to the corresponding specified action limits; or, for non-screen film modalities, to the manufacturer's recommended action limits; or for post-move, preexamination testing of mobile units, to the limits established in the test method used by the facility.

5.11.9.2 If the test results fall outside the action limits, the source of the problem shall be identified and corrective actions shall be taken and documented:

5.11.9.2.1 Before any further examinations are performed or any films are processed using the component of the mammography system that failed any of the tests described in RHB 5.11.1, 5.11.2, 5.11.4.1, 5.11.4.2, 5.11.4.3, 5.11.5.10, 5.11.6, 5.11.7, or 5.11.8.

5.11.9.2.2 Within thirty days of the test date for all other tests described in RHB 5.11.

RHB 5.12 Surveys.

5.12.1 At least once a year, each facility shall undergo a survey by a medical physicist or by an individual under the direct supervision of a medical physicist. At a minimum, this survey shall include the performance of tests and numerical values to ensure that the facility meets the quality assurance requirements of the annual tests described in RHB 5.11.5 and RHB 5.11.6 and the weekly phantom image quality test described in 5.11.2.

5.12.2 The results of all these tests conducted by the facility in accordance with RHB 5.11.1 through RHB 5.11.8, as well as written documentation of any corrective actions taken and their results, shall be evaluated for adequacy by the medical physicist performing the survey.

5.12.3 The medical physicist shall prepare a survey report that includes a summary of this review and recommendations for necessary improvements.

5.12.4 The survey report shall be sent to the facility within thirty days of the date of the survey.

5.12.5 The facility shall send a copy of the survey report to the Department within ten days of completion of corrective action required by the report. Documentation of corrective action, required as a result of the survey, must be sent to the Department.

5.12.6 The survey report shall be dated and signed by the medical physicist performing and/or supervising the survey. If the survey was performed entirely or in part by another individual under the direct supervision of the medical physicist, that individual and the part of the survey that individual performed shall also be identified in the survey report.

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### RHB 5.13 Mammography Equipment Evaluations.

Additional evaluations of mammography units or image processors shall be conducted whenever a new unit or processor is installed, a unit or processor is disassembled and reassembled at the same or a new location, or major components of a mammography unit or processor equipment are changed or repaired. These evaluations shall be used to determine whether the new or changed equipment meets the applicable standards in RHB 5.8 and RHB 5.11. All problems shall be corrected before the new or changed equipment is put into service for examinations or film processing. The mammography equipment evaluation shall be performed by a medical physicist or an individual under the direct supervision of a medical physicist.

### RHB 5.14 Calibration of Air Kerma Measuring Instruments.

Instruments used by medical physicists in their annual survey to measure the air kerma or air kerma rate from a mammography unit shall be calibrated at least once every two years and each time the instrument is repaired. The instrument calibration must be traceable to a national standard and calibrated with an accuracy of plus or minus six percent (ninety-five percent confidence level) in the mammography energy range.

### RHB 5.15 Additional Administrative Requirements.

Each facility where mammography services are provided shall ensure the availability for each mammography patient:

5.15.1 Instructions on how to perform breast self-examination; and

5.15.2 Information that early detection of breast cancer is maximized through a combined approach, using monthly breast self-examination, a thorough physical examination performed by a physician, and mammography performed at recommended intervals; and

5.15.3 Information that mammography is the most accurate method for making an early detection of breast cancer, however, no diagnostic tool is 100% effective.

### RHB 5.16 Facility Cleanliness.

5.16.1 The facility shall establish and implement written procedures for maintaining darkroom, screen, and view box cleanliness.

5.16.2 The facility shall document that all cleaning procedures are performed at the frequencies specified in the written procedures.

### RHB 5.17 Infection Control.

Facilities shall establish and comply with a system specifying procedures to be followed by the facility for cleaning and disinfecting mammography equipment after contact with blood or other potentially infectious materials. This system shall specify the methods for documenting facility compliance with the infection control procedures established and shall:

5.17.1 Comply with the manufacture recommended procedures for the cleaning and disinfection of the mammography equipment used in the facility; or

5.17.2 If adequate manufacturer's recommendations are not available, comply with generally accepted guidance on infection control, until such recommendations become available.

**RHB 5.18 Mammography Procedures and Techniques for Mammography Patients with Breast Implants.**

5.18.1 Each facility shall have a procedure to inquire whether or not the patient has breast implants prior to the actual mammographic exam.

5.18.2 Except where contraindicated, or unless modified by a physician's directions, patients with breast implants undergoing mammography shall have mammographic views to maximize the visualization of breast tissue.

**RHB 5.19 Consumer Complaint Mechanism.**

Each facility shall:

5.19.1 Establish a written and documented system for collecting and resolving consumer complaints;

5.19.2 Maintain a record of each serious complaint received by the facility for at least three years after the date the complaint was received;

5.19.3 Provide the consumer with adequate directions for filing serious complaints with the facility's accreditation body if the facility is unable to resolve a serious complaint to the consumer's satisfaction;

5.19.4 Report unresolved serious complaints to the accreditation body in a manner and time frame specified by the accreditation body.

**RHB 5.20 Clinical Image Quality.**

Clinical images produced by any certified facility shall continue to comply with the standards for clinical image quality established by that facility's accreditation body.

**RHB 5.21 Mammography Medical Outcomes Audit.**

Each facility shall establish and maintain a mammography medical outcomes audit program to follow-up positive mammographic assessments and to correlate pathology results with the interpreting physician's findings. This program shall be designed to ensure the reliability, clarity and accuracy of the interpretation of mammograms.

5.21.1 General Requirements. Each facility shall establish a system to collect and review outcome data for all mammograms performed, including follow-up on the disposition of all positive mammograms and correlation of pathology results with the interpreting physician's mammography report. Analysis of these outcome data shall be made individually and collectively for all interpreting physicians at the facility. In addition, any cases of breast cancer among patients imaged at the facility that subsequently become known to the facility shall prompt the facility to initiate follow-up on surgical and/or pathology results and review of the mammograms taken prior to the diagnosis of a malignancy.

5.21.2 Frequency of Audit Analysis. The facility's first audit analysis shall be initiated no later than twelve months after the date the facility becomes certified, or 12 months after April 28, 1999, whichever is later. This audit analysis shall be completed within an additional twelve months to permit completion of diagnostic procedures and data collection. Subsequent audit analyses shall be conducted at least once every twelve months.

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5.21.3 **Reviewing Interpreting Physician.** Each facility shall designate at least one interpreting physician to review the medical outcomes audit data at least once every twelve months. This individual shall record the dates of the audit period(s) and shall be responsible for analyzing results based on this audit. This individual shall also be responsible for documenting the results, notifying other interpreting physicians of their results and the facility aggregate results. If follow-up actions are taken, the reviewing interpreting physician shall also be responsible for documenting the nature of the follow-up.

### RHB 5.22 Additional Mammography Review and Patient Notification.

5.22.1 If the Department believes that mammography quality at a facility has been compromised and may present a serious risk to human health, the facility shall provide clinical images and other relevant information, as specified by the Department, for review by the accreditation body. The Department will determine whether the facility is in compliance with this Part and if not, whether there is a need to notify affected patients, their physicians, or the public that the liability, clarity, and accuracy of interpretation of mammograms has been compromised.

5.22.2 If the Department determines that the quality of mammography performed by a facility, whether or not certified under RHB 5.3, was so inconsistent with the quality standards established in this Part as to present a significant risk to individual or public health, the Department may require such facility to notify patients who received mammograms at such facility, and their referring physicians, of the deficiencies presenting such risk, the potential harm resulting, appropriate remedial measures and such other relevant information as the Department may require.

### RHB 5.23 Revocation of Accreditation.

If a facility's accreditation is revoked by an accreditation body, the Department may conduct an investigation into the reasons for the revocation. Following such investigation, the Department may suspend or revoke the facility's certificate and take whatever other action or combination of actions to protect public health, including requiring the establishment and implementation of a corrective plan of action that shall permit the certificate to continue in effect while the facility seeks reaccreditation. A facility whose certificate is suspended or revoked because it has lost its accreditation may not practice mammography.

### RHB 5.24 Suspension or Revocation of Certificates.

5.24.1 Except as provided in 5.24.2, the Department may suspend or revoke a certificate if the Department finds that the owner, operator, or any employee of the facility:

5.24.1.1 Has been guilty of misrepresentation in obtaining the certificate;

5.24.1.2 Has failed to comply with the standards of RHB 5.2 through 5.22;

5.24.1.3 Has failed to comply with reasonable requests of the Department or the accreditation body for records, information, reports, or materials that the Department believes are necessary to determine the continued eligibility of the facility for a certificate or continued compliance with the standards of RHB 5.2 through RHB 5.22;

5.24.1.4 Has refused a reasonable request of a duly designated FDA inspector, Department inspector or accreditation body representative for permission to inspect the facility or the operations and pertinent records of the facility;

5.24.1.5 Has violated or aided and abetted in the violation of any provision of this regulation;

5.24.1.6 Has failed to comply with prior sanctions imposed by the Department; or

5.24.1.7 Has failed to pay any required fees.

5.24.2 The Department may suspend the certificate of a facility if the Department makes a finding described in RHB 5.24.1 and also determines that:

5.24.2.1 The failure to comply with required standards present a serious risk to human health;

5.24.2.2 The refusal to permit inspection makes immediate suspension necessary; or

5.24.2.3 There is a reason to believe that the violation or aiding and abetting of the violation was intentional or associated with fraud.

5.24.3 If the Department suspends a certificate in accordance with RHB 5.24.2:

5.24.3.1 The facility may request a review from the Deputy Commissioner of Health Regulation no later than thirty days from the effective date of this suspension;

5.24.3.2 The suspension shall remain in effect until the Department determines that:

5.24.3.2.1 Allegations of violations or misconduct were not substantiated;

5.24.3.2.2 Violations of required standards have been corrected to the Department's satisfaction; or

5.24.3.2.3 The facility's certificate is revoked in accordance with RHB 5.24.4.

5.24.4 The Department may revoke the facility's certificate if the Department determines that the facility:

5.24.4.1 Is unwilling or unable to correct violations that were the basis for suspension; or

5.24.4.2 Has engaged in fraudulent activity to obtain or continue certification.

RHB 5.25 Mammography Units Used for Localization or Stereotactic Breast Biopsy Procedures.

5.25.1 Personnel. The following requirements apply to all personnel involved in localization or biopsy procedures performed with mammography units:

5.25.1.1 Interpreting Physicians. The interpreting physician shall:

5.25.1.1.1 Be responsible for quality assurance activities including medical audit (tracking of number of biopsies done, cancers found, benign lesions, biopsies needing repeat, and complications);

5.25.1.1.2 Be responsible for oversight of all quality control;

5.25.1.1.3 Be responsible for the supervision of the radiologic technologist and the medical physicist;

5.25.1.1.4 Be responsible for post-biopsy management of the patient.

5.25.1.1.5 Documentation of compliance with this Part shall be provided to the Department upon request;

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### 5.25.1.2 Radiologic Technologists.

5.25.1.2.1 The radiologic technologist shall be currently registered in good standing with the American Registry of Radiologic Technologists.

5.25.1.2.2 The technologist shall have previously received documented training specifically in stereotactic breast biopsy procedures and techniques along with positioning for stereotactic units. This training shall consist of 15 hours of continuing education in mammography every three years and three hours of Category A continuing education in stereotactic breast biopsy every three years.

5.25.1.2.3 Documentation of registration and training shall be provided to the Department upon request.

### 5.25.1.3 Medical Physicists. The medical physicist shall:

5.25.1.3.1 Be approved by the Department as a Class IX vendor as required in 2.6.6.9 and be certified in diagnostic radiological physics or radiological physics by either the American Board of Radiology (ABR) or The American Board Medical Physics (ABMP);

5.25.1.3.2 Meet the requirements of RHB 5.7.3.1.1, 5.7.3.1.2, and 5.7.3.1.3;

5.25.1.3.3 Have fifteen hours of continuing education in mammography physics every three years;

5.25.1.3.4 Have performed at least two stereotactic breast biopsy surveys per year; and

5.25.1.3.5 Have three hours of continuing education in stereotactic breast biopsy physics every three years.

5.25.2 Equipment. Mammography units used for stereotactic breast biopsy or localization procedures shall meet the requirements of RHB 5.8, 5.11.5.2, 5.11.5.3, and 5.11.5.8 with the exception of RHB 5.11.5.10. Digital output mammography systems that do not use screen-film image receptors are exempt from the requirements of RHB 5.8 of these regulations as they relate to screen-film image receptors.

### 5.25.5 Quality Assurance.

5.25.5.1 Each facility shall establish and maintain a quality assurance program to ensure the safety, reliability, clarity and accuracy of mammography localization or biopsy procedures performed at the facility.

5.25.5.2 Each facility shall have the services of a medical physicist available to survey mammography equipment and to oversee the equipment-related quality assurance practices of the facility.

5.25.5.3 The quality assurance program shall be in writing and shall have been developed by a medical physicist. The program shall include, but need not be limited to the following:

5.25.5.3.1 Specifications of the tests that are to be performed, including instructions to be employed in the performance of those tests; and

5.25.5.3.2 Specifications of the frequency at which tests are to be performed, the acceptable tolerance for each parameter measured and actions to be taken if tolerances are exceeded.



5.25.5.4 The medical physicist shall conduct a review of the quality assurance program each year. Such review shall include evaluation of the results of quality assurance testing and quality control tests as specified in the American College of Radiology's Stereotactic Breast Biopsy Accreditation Program Overview.

5.25.5.5 Each facility shall maintain written records of the radiation dose measurements and quality assurance testing performed, as required in this Part, for inspection by the Department for a period of at least one year, or until the next Department inspection, whichever is later. Such records shall include, but not be limited to, the following:

5.25.5.5.1 The date of the test and identification of the person performing the test;

5.25.5.5.2 Identification of the type of testing that was performed; and

5.25.5.5.3 Notification of whether the results of the testing were within the parameters established by the medical physicist.

5.25.5.6 The facility shall send a copy of the medical physicist's survey report to the Department within ten days of completion of corrective action required by the report. Documentation of corrective action, required as a result of the survey, must to be sent to the Department.

5.25.5.7 The survey report shall be dated and signed by the medical physicist performing and/or supervising the survey. If the survey was performed entirely or in part by another individual under the direct supervision of the medical physicist, that individual and the part of the survey that individual performed shall also be identified in the survey report.

#### RHB 5.26 Shielding.

All mammography facilities shall meet the shielding requirements specified in RHB 4.4.

#### RHB 5.27 Operating Procedures.

All mammography facilities shall meet the requirements of RHB 4.2.3.

#### RHB 5.28 Notification Requirements for Mobile Mammography Facilities Certified by Another Certifying Agency.

Mobile mammography facilities that operate in South Carolina and are certified under MQSA by the FDA, or another State authorized by FDA to certify mammography facilities under MQSA, shall:

5.28.1 Notify the Department by telephone, facsimile, or letter of each date and location of operation of the mobile mammography facility in South Carolina prior to conducting such operation.

5.28.2 At all times while operating in South Carolina, have the following documentation available for review and inspection by the Department:

5.28.2.1 A copy of the mammography facility certificate issued by the FDA or another State, showing that the facility is currently certified.

5.28.2.2 A summary of the most recent physics survey of the mammography machine(s) and documentation of any corrective actions recommended by the medical physicist who performed the physics survey.

5.28.2.3 Documentation that personnel meet the qualifications of RHB 5.7.

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RHB 5.29 Failure of Mobile Mammography Facilities Certified by Another Certifying Entity to Meet Requirements.

The Department shall notify the certifying entity of the facts and circumstances and may take other actions as may be appropriate under the Atomic Energy and Radiation Control Act and regulations thereunder if the Department has reason to believe that the owner, operator, or any employee of a mobile facility certified by another certifying entity:

5.29.1 Has been guilty of misrepresentation in obtaining the certificate;

5.29.2 Has failed to comply with the standards of this Part;

5.29.3 Has failed to comply with reasonable requests of the Department for records, information, reports, or materials that the Department believes are necessary to determine the continued eligibility of the facility for a certificate or continued compliance with the standards of this Part;

5.29.4 Has refused a reasonable request of a Department representative for permission to inspect the facility or the operations and pertinent records of the facility.

## Part V - Appendix A

## Mammography Dose Measurement Protocol

The technique factors used for performing a mammography examination shall not permit the mean glandular absorbed dose to exceed the limits specified in RHB 5.11.5.10. Radiation measurements shall be performed with an integrating radiation measuring device that is appropriate to the high beam intensity and mammographic kilovoltage peak (kVp) used, and sufficiently sensitive to determine compliance with the criteria specified in RHB 5.14. The instrument shall have been calibrated as specified in RHB 5.14.

The mammography exam dose limits are based on an average compressed breast value of 4.2 centimeters having an average density (i.e., 50 percent adipose and 50 percent glandular).

Perform the following steps to determine the mean glandular dose to a nominal 4.2 centimeter compressed breast:

(a) Measure and record the x-ray system's useful beam half value layer (HVL). (See RHB 5.11.5.8.) Any compression device normally in the useful beam during mammography procedures shall be required to be placed between the x-ray tube target and measuring device when determining the HVL. The useful beam shall be collimated to a size encompassing the detector.

NOTE: Filters used for the HVL evaluation should be placed as close to the target as practical. The HVL for screen-film mammography should not exceed the minimum acceptable HVL by more than 0.1 millimeter of aluminum equivalent.

(b) Determine the glandular dose to entrance exposure factor from the Mammography Dose Evaluation Table (see Appendix C of this Part) using the appropriate HVL, kVp and x-ray tube target-filter material.

NOTE: The kVp of screen-film mammography systems with molybdenum target-filter combinations should be accurately measured to determine the appropriate glandular dose to entrance exposure factor from Appendix C of this Part.

(c) If the equipment has the capability for variable source to image receptor distance, set the craniocaudal source to image receptor distance (SID) for the image receptor system used.

(d) Position in the useful beam any compression apparatus normally used.

NOTE: Some mammography systems have the capability of providing automatic adjustment of technique factors through feedback from the position of the compression device. On such systems, the compression device should be lowered to a position 4.2 centimeters above the breast support assembly (BSA). The device should then be removed, inverted and replaced to allow placement of the phantom and measuring device on the BSA below the compression device. If the compression device cannot be replaced in an inverted position, the device should be placed in the beam using auxiliary support.

(e) Placement of the Radiation Measuring Device.

(1) For systems equipped with automatic exposure control (AEC):

(A) Place a properly loaded film cassette in the cassette holder.

NOTE: The loaded cassette is placed in the cassette holder to simulate, as much as is possible, the conditions under which actual patient exposures are made. Following radiation measurements, the film should be discarded and the cassette reloaded with unexposed film.

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(B) Place a mammography phantom (see the definition for "Phantom" in RHB 9.168) on the breast support assembly (BSA). Align the phantom so that the edge of the phantom is aligned with the chest wall side of the BSA and the phantom is over the automatic exposure control device(s).

(C) Place a radiation measuring device in the useful beam so the center axis of the device is parallel to the breast support assembly (BSA). The geometric center of the measuring device shall be positioned 4.5 centimeters above the BSA, 2.5 centimeters from the chest wall edge of the BSA and immediately adjacent to either side of the mammography phantom.

(2) For systems not equipped with AEC, place a radiation measuring device in the useful beam so that the center axis of the device is parallel to the breast support assembly (BSA). The geometric center of the measuring device shall be positioned so that it is centered 4.5 centimeters above the BSA, 2.5 centimeters from the chest wall edge of the BSA and at the center line of the BSA. No part of the devices detector area shall be outside of the useful beam.

(f) Collimate the x-ray field to the size normally used and assure that the area covered by the useful beam includes the detector area of the radiation measuring device and the mammography phantom if the equipment is equipped with automatic exposure.

(g) Set the appropriate technique factors or automatic exposure controls normally used for a nominal 4.2 centimeter compressed breast.

(h) Measure and record the exposure in air with the radiation measuring device.

(i) Calculate the mean glandular dose for a 4.2 centimeter compressed breast by multiplying the measured exposure in millicoulombs per kilogram or in roentgens by the glandular dose to entrance exposure factor, which was determined using the procedure described in subsection (b) of this Appendix.

EXAMPLE: A mammography system is provided with a molybdenum target-filter combination, and the HVL and kVp are determined to be 0.3 and 30, respectively. Therefore, for a 4.2 centimeter compressed breast, the glandular dose to entrance exposure factor from the Mammography Dose Evaluation Table (Appendix C of this Part) would be 159 mrad. The measured roentgen output determined in subsection (h) of this Appendix is determined to be 1.8 R. Therefore, the mean glandular dose would be 1.8 R multiplied by 159 mrad/R- This results in a mean glandular dose measurement of 286 mrad. As such, the system would be in compliance with RHB 5.11.5.10.

## Part V - Appendix B

## Mammography Phantom Image Evaluation

Mammography Phantom image evaluation shall be performed using the procedure below. The evaluation shall be performed weekly as a part of the quality assurance program. The evaluation shall be performed with the mammography phantom specified in RHB 9.168.

- (a) Equipment necessary for mammography phantom image evaluation includes a densitometer, the mammography phantom and mammographic cassette and film.
- (b) Load film in the mammographic cassette according to the manufacturer's instructions.
- (c) Place the properly loaded cassette in the cassette holder.
- (d) Place the mammography phantom on the breast support assembly (BSA) so that the edge of the phantom is aligned with the chest wall side of the BSA. Align the phantom so that the masses in the phantom are nearest the chest wall edge of the BSA and the fibers in the phantom are away from the chest wall edge of the BSA. If the mammography machine has the capability of automatic exposure control, place the phantom so that the phantom covers the phototimer sensor.
- (e) Position the compression device so that it is in contact with the phantom.
- (f) Select the technique factors used most frequently in the clinical setting for a 4.2 centimeter compressed breast and make an exposure of the phantom.
- (g) Process the film in the processor used for clinical mammography films.
- (h) Examine the processed image for areas of non-uniformity of optical density and for the presence of artifacts due to dirt, dust, grid lines or processing.

NOTE: If any of the problems noted above are evident on the processed image, the mammography machine film processor and film cassette(s) should be evaluated and the problem corrected. The phantom image evaluation should be repeated after the problem is corrected.

- (i) Measure and record the optical density of the film near the center of the phantom image. The optical density of the film at the center of the image of the phantom shall be at least 1.20 when exposed under a typical clinical condition.
- (j) Examine the phantom image and count and record the number of masses visualized. Repeat this procedure for the speck groups and the fibrils and record the number of objects visualized. There are a total of 16 imaging objects (5 masses, 5 speck groups and 6 fibrils) in the phantom. Evaluation criteria for objects visualized in the phantom image are in RHB 5.11.2.3 and RHB 5.11.2.4. As a minimum, the objects that must be visualized in the phantom image are:

- (1) The masses that are 0.75 millimeter or larger (a total of 3 masses);
- (2) The speck groups that are 0.32 millimeter or larger (a total of 3 speck groups);
- (3) The fibrils that are 0.75 millimeter or larger (a total of 4 fibrils).

NOTE: The phantom image should be compared with previous films, including the original phantom image, to determine if subtle changes are occurring from week to week.

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Part V - Appendix C

Mammography Dose Evaluation Tables

These tables are used to determine the mean glandular dose in milligrays delivered by 25.9 mC/kg (or millirad) delivered by 1 R in air incident on a 4.2 centimeter thickness compressed breast of average density (50 percent adipose and 50 percent glandular tissue). Linear extrapolation or interpolation shall be made for any HVL not listed. To convert from entrance exposure in air in roentgens to mean glandular breast dose in millirads, multiply the entrance exposure by the factor shown in the table for the appropriate kVp and beam quality (HVL) combination.

GLANDULAR DOSE (IN mrad) FOR 1 ROENTGEN ENTRANCE EXPOSURE TO A 4.2-CM BREAST THICKNESS---50% ADIPOSE-50%GLANDULAR BREAST TISSUE---USING A Mo/Mo TARGET-FILTER COMBINATION\*

X-ray Tube Voltage (kVp)												W/AI
HVL	23	24	25	26	27	28	29	30	31	32	33	Target-Filter Combination
0.23	116											
0.24	121	124										
0.25	126	129	131									
0.26	130	133	135	138								
0.27	135	138	140	142	143							
0.28	140	142	144	146	147	149						
0.29	144	146	148	150	151	153	154					
0.30	149	151	153	155	156	157	158	159				170
0.31	154	156	157	159	160	161	162	163	164			175
0.32	158	160	162	163	164	166	167	168	168	170	171	180
0.33	163	165	166	168	169	170	171	173	173	174	175	185
0.34	168	170	171	172	173	174	175	176	177	178	179	190
0.35		174	175	176	177	178	179	180	181	182	183	194
0.36			179	181	182	183	184	185	185	186	187	199
0.37				185	186	187	188	189	190	191	191	204
0.38					190	191	192	193	194	195	195	208
0.39						196	197	198	198	199	200	213
0.40							201	202	203	204	204	217
0.41								206	207	208	208	221
0.42									211	212	212	225
0.43										215	216	230
0.44											220	234
0.45												238

GLANDULAR DOSE (IN mrad) FOR 1 ROENTGEN ENTRANCE EXPOSURE TO A 4.2-CM BREAST THICKNESS ---50% ADIPOSE 50% GLANDULAR BREAST TISSUE ---USING A Mo/Rh TARGET-FILTER COMBINATION\*

X-ray Tube Voltage (kVp)											
HVL	25	26	27	28	29	30	31	32	33	34	35
0.28	149	151	154								
0.29	154	156	158	159							
0.30	158	160	162	162	163						
0.31	163	164	166	166	166	167	167				
0.32	167	169	171	171	171	171	172	172			
0.33	171	173	175	176	176	176	176	177			
0.34	176	178	179	179	180	180	180	181	181		
0.35	180	181	183	183	184	185	185	186	187		
0.36	185	186	187	187	188	188	189	190	191	191	
0.37	189	190	191	191	192	193	193	194	195	195	
0.38	193	194	196	196	197	197	197	198	199	199	200
0.39	198	199	200	200	201	201	202	202	203	203	204
0.40	202	203	204	204	205	205	206	207	208	208	208
0.41	206	207	208	208	209	209	210	211	212	212	212
0.42	211	211	212	212	213	213	214	215	216	216	217
0.43	215	216	217	217	218	218	219	219	220	220	221
0.44	220	220	221	221	222	222	223	223	224	224	225
0.45	224	224	225	225	226	226	227	227	228	228	229
0.46		228	229	229	230	231	231	232	233	233	234
0.47			233	233	234	235	235	236	237	237	238
0.48			238	238	239	240	240	241	241	242	242
0.49				242	243	243	244	244	245	245	246
0.50					247	247	248	248	249	250	251
0.51						251	252	253	254	254	255
0.52							257	257	258	258	259
0.53							261	261	262	263	264
0.54								265	266	267	268
0.55								269	270	271	272
0.56									275	276	276
0.57									279	280	281
0.58										284	285
0.59										288	289
0.60											293

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GLANDULAR DOSE (IN mrad) FOR 1 ROENTGEN ENTRANCE EXPOSURE TO A 4.2-CM BREAST THICKNESS ---50% ADIPOSE 50% GLANDULAR BREAST TISSUE ---USING A Rh/Rh TARGET-FILTER COMBINATION\*

X-ray Tube Voltage (kVp)											
HVL	25	26	27	28	29	30	31	32	33	34	35
0.28	150	155	159								
0.29	155	160	164	168							
0.30	160	164	168	172	176						
0.31	165	168	172	174	180	182					
0.32	169	173	177	181	184	186	188				
0.33	174	178	181	185	188	190	192				
0.34	179	183	186	190	193	195	196	199			
0.35	184	187	190	194	197	199	201	203			
0.36	189	192	195	198	201	204	205	207	209		
0.37	193	196	199	202	205	207	209	211	213		
0.38	198	201	204	207	209	211	213	215	217	219	221
0.39	203	206	208	211	214	216	217	219	221	223	224
0.40	208	211	213	216	218	220	221	223	224	226	228
0.41	213	215	217	220	222	224	225	227	228	230	232
0.42	218	220	222	224	226	228	229	231	232	234	236
0.43	222	224	226	228	230	232	233	235	236	238	240
0.44	227	229	231	233	235	237	238	239	240	242	243
0.45	232	234	235	237	239	241	242	243	244	246	247
0.46			239	241	243	245	246	247	248	250	251
0.47					247	249	250	251	252	254	255
0.48					251	253	254	255	256	258	259
0.49						257	258	259	260	261	262
0.50						261	262	263	264	265	266
0.51							266	267	268	269	270
0.52							270	271	272	273	274
0.53							275	276	276	277	278
0.54								279	280	280	281
0.55								283	284	284	285
0.56									288	288	289
0.57										292	293
0.58										296	297
0.59											300
0.60											304



PART VI  
USE OF THERAPEUTIC EQUIPMENT

RHB 6.1 Scope.

This part establishes requirements for use of therapeutic equipment by persons licensed to practice one or more of the health professions within the authority granted to them by statute or regulation. Therapeutic equipment in this part will be defined as any therapeutic machine capable of producing a useful beam of x-rays, or x-rays and charged particles with energies greater than 500 keV. Particle accelerators meeting this definition will be regulated under this part while all other particle accelerators will be regulated under Title C. The provisions of this part are in addition to, and not in substitution for, other applicable provisions of these regulations. All provisions of this Part apply to therapeutic veterinary installations.

RHB 6.2 Shielding Requirements for all Therapeutic X-ray Equipment.

6.2.1 Prior to construction of a new facility, modification, or renovation of an existing facility or replacement of therapeutic equipment, the floor plans and equipment arrangement shall be reviewed by a Class VII or Class IX vendor and submitted to the Department for review and acceptance.

6.2.2 The therapeutic equipment shall not be installed or operated before a shielding plan for the unit has been reviewed and accepted by the Department.

6.2.3 Shielding Plan Requirements.

6.2.3.1 The registrant shall submit plans and a report, including any recommendations and all basic assumptions used, from the vendor to the Department. Applicable fees shall be submitted in accordance with RHB 2.3.2

6.2.3.2 Each installation shall be provided with protective barriers as are necessary to assure compliance with RHB 3.3, RHB 3.4, and RHB 3.6. This requirement shall be deemed met if the thickness of such barriers is equivalent to the thickness as computed in accordance with calculations in the National Council on Radiation Protection and Measurements (NCRP) Report #51, "Radiation Protection Design Guidelines for .1-100 MeV Particle Accelerator Facilities"; "NCRP Report #147 "Structural Shielding Design for Medical X-ray Imaging Facilities"; or an equivalent reference.

6.2.3.3 All wall, floor, and ceiling areas exposed to the useful beam shall have primary barriers. Primary barriers in walls shall extend to a minimum height of 2.13 meters above the floor.

6.2.3.4 Secondary barriers shall be provided in all wall, floor, and ceiling areas not having primary barriers.

6.2.3.5 The operator's station at the control shall be behind a protective barrier either in a separate room, in a protected booth, or behind a shield which will intercept the useful beam and any radiation that has been scattered only once.

6.2.4 The acceptance of such plans shall not preclude the requirement for additional modifications should a subsequent analysis of operating conditions indicate the possibility of an individual receiving a dose in excess of the limits prescribed in Part III of these regulations.

6.2.5 Area Surveys. The registrant shall have a radiation area survey performed by a Class V, Class VII, or Class IX vendor registered with the Department.

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6.2.5.1 The survey shall be submitted to the Department for review and shall include a scale drawing of the room, indicating the composition of the walls, floor, ceiling, windows, and doors and the placement of the x-ray equipment, including the table, and control area. The survey shall include an evaluation of the adequacy of each protective barrier to include the control area.

6.2.5.2 A copy of the radiation area survey shall be submitted to the Department within 30 days after installation of the x-ray equipment.

6.2.5.3 Any deviation from the accepted shielding plan shall be documented and evaluated for adequacy by a Class IX vendor.

6.2.6 After installation of a radiation machine, the facility shall maintain for inspection by the Department:

6.2.6.1 The maximum rating of technique factors;

6.2.6.2 A scale drawing of the room in which a stationary radiation machine system is located with such drawing indicating the use of areas adjacent to the room and an estimation of the extent of occupancy by an individual in such areas. In addition, the drawing shall include:

6.2.6.2.1 The results of a survey for radiation levels present at the operator's position and at pertinent points outside the room at specified test conditions; or

6.2.6.2.2 The type and thickness of materials, or lead equivalency, of each protective barrier.

### RHB 6.3 General Provisions for All Therapeutic Equipment.

#### 6.3.1 Radiation Safety Officer.

6.3.1.1 The registrant shall designate an individual who will be responsible for radiation protection for the therapeutic equipment. Such individual may be a radiological physicist, and shall:

6.3.1.1.1 Be qualified by training and experience concerning all hazards and precautions involved in operating the therapeutic equipment for which he is responsible;

6.3.1.1.2 Recommend a detailed program of radiation safety for effective compliance with the applicable requirements of these regulations;

6.3.1.1.3 Give instructions concerning hazards and safety practices to individuals who may be exposed to radiation from the therapeutic equipment;

6.3.1.1.4 Make surveys and carry out other procedures as required by these regulations.

6.3.1.2 Each therapeutic machine shall be under the administrative control of the Radiation Safety Officer, who will be responsible for the safe operation of the equipment.

#### 6.3.2 Procedures.

6.3.2.1 Written operating procedures as well as specified safety rules shall be established for each therapeutic unit facility and approved by the radiation safety officer.

6.3.2.1.1 Operating Procedures. The written operating procedures to be implemented shall include the following:

6.3.2.1.1.1 Policies and Procedures for Pregnant Workers.

NRC Regulatory Guide 8.13, "Instruction Concerning Prenatal Radiation Exposure" should be used for guidance concerning pregnant workers.

6.3.2.1.1.2 Policies and procedures for personnel monitoring;

6.3.2.1.1.3 Policies and procedures for training new employees; and

6.3.2.1.1.4 Policies and procedures for identifying and reporting misadministrations, as defined by RHB 9.153.

6.3.2.1.1.5 Policies and procedures for quality assurance addressing annual equipment performance testing on radiation therapy simulators and CT scanners used for treatment planning.

6.3.2.1.2 Emergency Procedures. The emergency procedures shall include instructions for contacting the therapeutic radiological physicist when operational problems or emergencies occur and the actions that are to be taken until the physicist can be contacted.

6.3.2.2 Operators and maintenance personnel shall be familiar with and have available a copy of the written operating and emergency procedures. Documentation must be maintained indicating that the operator or maintenance person has read and agrees to adhere to the operating procedures.

### 6.3.3 Operator Requirements and Training.

6.3.3.1 The registrant shall assure that all therapeutic equipment under his control is operated only by a radiation therapist possessing a current, valid certificate from the South Carolina Quality Standards Association, or a licensed practitioner as defined by the South Carolina Board of Medical Examiners. For the purpose of this Part, a radiation therapist is defined as a person who applies radiation to humans for therapeutic purposes; performs treatment setups, including, but not limited to, patient positioning, setting of treatment parameters on the control panel, and verification of treatment accessories; or documents daily treatments for a patient's chart.

6.3.3.2 In-house modification, repairs, or preventative maintenance on therapeutic equipment components or safety interlocks may be performed only by or under the direct supervision of persons who have received at least the minimum training specified in RHB 6.3.3.12 and demonstrated competence specified in RHB 6.3.3.13.

6.3.3.3 No person other than a licensed practitioner or a radiation therapist possessing a current, valid certificate from the South Carolina Quality Standards Association shall use equipment emitting ionizing radiation on humans for therapeutic purposes.

6.3.3.4 No person shall employ or designate as a radiation therapist a person who does not hold a certificate issued by the South Carolina Quality Standards Association.

6.3.3.5 No person holding a certificate issued by the South Carolina Quality Standards Association shall use equipment emitting ionizing radiation on humans for therapeutic purposes unless under the direction and supervision of a licensed practitioner and unless so directed by prescription of a licensed practitioner.

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6.3.3.6 No person who is not certified by the South Carolina Quality Standards Association shall take, use, or exhibit the title of "limited practice radiographer," "radiographer," or "radiation therapist" or any other title, sign, display, or declaration that tends to lead the public to believe that the person is authorized to apply ionizing radiation on humans for therapeutic purposes.

6.3.3.7 A student enrolled in and attending a school or college of medicine, radiologic technology, radiation therapy, or a curriculum approved by the South Carolina Quality Standards Association, or a resident in an approved graduate education program of medicine may apply ionizing radiation to humans without a certificate from the South Carolina Quality Standards Association as long as the student or resident is under the supervision of a licensed practitioner or direct supervision of a certified radiation therapist appropriately trained to supervise the specific procedure.

6.3.3.8 The registrant shall display each operator's current certificate in public view, not obstructed by any barrier, equipment, or other object. The registrant may also post a notice to the public that South Carolina Radiation Quality Standards Association certificates are available for review upon request.

6.3.3.9 The registrant shall ensure that each operator has received training specific to the equipment and procedures in use at his facility, including machine specific training, use of personnel monitoring devices, quality assurance procedures, and the operating procedures required by RHB 6.3.2. Documentation of this training for each operator shall be made available for Departmental review.

6.3.3.10 All operators shall receive at least one month of on-the-job training before assuming operational responsibility.

6.3.3.11 The registrant shall maintain a record of all training for each operator. Such records shall be made available for Departmental inspection.

6.3.3.12 Training of in-house and test maintenance personnel shall include:

6.3.3.12.1 Fundamentals of radiation safety.

6.3.3.12.1.1 Characteristics of radiation.

6.3.3.12.1.2 Units of radiation dose.

6.3.3.12.1.3 Hazards of excessive exposure to radiation.

6.3.3.12.1.4 Levels of radiation from therapeutic equipment.

6.3.3.12.1.5 Methods used to prevent radiation exposure including shielding, interlocks, safety rules, and radiation monitoring equipment.

6.3.3.12.2 Use and care of personnel monitoring equipment employed at the facility.

6.3.3.12.3 Location and use of all operating controls.

6.3.3.12.4 Requirements of pertinent State Regulations.

6.3.3.12.5 Registrant's written operating and emergency procedures.

6.3.3.13 In-house personnel who are to perform or directly supervise modifications, tests or maintenance work shall demonstrate the following capabilities to the radiation safety officer:

6.3.3.13.1 Ability to read and understand electrical diagrams.

6.3.3.13.2 A thorough knowledge of the principles and operation of the therapeutic equipment.

6.3.3.13.3 A thorough knowledge of the safety interlock system.

6.3.3.13.4 Ability to understand, use, and check the operation of radiation survey instruments.

6.3.3.14 The registrant shall maintain a record of all training for in-house testing and maintenance personnel. Such records shall be made available for Departmental inspection.

#### 6.3.4 Control.

6.3.4.1 The radiation safety officer shall maintain a current list of all personnel who are qualified to service the therapeutic equipment.

6.3.4.2 No registrant shall permit a therapeutic unit to operate at any time with a safety interlock bypassed, except for necessary testing.

6.3.4.3 The accelerator shall not be used for treatment of patients unless the operator can maintain visual observation of the patient and audible communication with the patient.

6.3.4.4 No individual other than the patient shall be in the therapy room during irradiation.

6.3.5 Technique Indicators. Instrumentation readouts and controls on the therapy control console must be clearly identified and easily discernable.

6.3.6 The accelerator is used in such a manner that patients, workers, and the general public are protected from radiation hazards and the provisions of Part III of these regulations are met.

6.3.7 No therapeutic machine shall be left unattended unless it is secured against unauthorized use.

#### RHB 6.4 Therapeutic X-ray Systems of Less than 1 MeV.

##### 6.4.1 Equipment Requirements.

6.4.1.1 Leakage Radiation. When the tube is operated at its leakage technique factors, the leakage radiation shall not exceed the values specified at the distance stated for the classification of that x-ray system shown in Table 1.

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TABLE 1. LEAKAGE LIMITS FOR THERAPEUTIC X-RAY SYSTEMS OF LESS THAN 1 MeV.

System	Leakage Limit	Measurement Location
Contact Therapy	100 mR/hr	5 cm from surface of tube housing
0-150 kVp (manufactured or installed prior to the effective date of these regulations)	1 R in 1 hr.	1 m from source
0-150 kVp (manufactured on or after the effective date of these regulations)	100 mR in 1 hr	1 m from source
151-500 kVp	1 R in 1 hr	1 m from source
500-999 kVp	0.1 percent of 1 R in 1 hr.	1 m from source useful beam or

6.4.1.2 Permanent Beam-Limiting Devices. Permanent fixed diaphragms or cones used for limiting the useful beam shall provide the same or a higher degree of protection as required for the tube housing assembly.

### 6.4.1.3 Removable and Adjustable Beam-Limiting Device.

6.4.1.3.1 Removable beam-limiting devices shall, for the portion of the useful beam to be blocked by these devices, transmit not more than 1 percent of the useful beam at the maximum kV and maximum treatment filter. This requirement does not apply to auxiliary blocks or materials placed in the useful beam to shape the useful beam to the individual patient.

6.4.1.3.2 Adjustable beam-limiting devices shall, for the portion of the x-ray beam to be blocked by these devices, transmit not more than 5 percent of the useful beam at the maximum kV and maximum treatment filter.

6.4.1.3.3 Adjustable beam-limiting devices installed after May 25, 2001 shall meet the requirements of RHB 6.4.1.3.

### 6.4.1.4 The filter system shall be so designed that:

6.4.1.4.1 The filters cannot be accidentally displaced at any possible tube orientation;

6.4.1.4.2 For equipment installed after the effective date of these regulations, an interlock system prevents irradiation if the proper filter is not in place;

6.4.1.4.3 The radiation at 5 centimeters from the filter insertion slot opening does not exceed 30 Roentgens (7.74 mC/kg) per hour under any operating conditions; and

6.4.1.4.4 Each filter is marked as to its material of construction and its thickness. For wedge filters, the wedge angle shall appear on the wedge or wedge tray.

6.4.1.5. Tube Immobilization. The tube housing assembly shall be capable of being immobilized for stationary treatments.

6.4.1.6 Focal Spot Marking. The tube housing assembly shall be so marked that it is possible to determine the location of the focal spot to within 5 millimeters, and such markings shall be readily accessible for use during calibration procedures.

6.4.1.7 Beam Block. Contact therapy tube housing assemblies shall have a removable shield of at least 0.5 millimeter lead equivalency at 100 kVp that can be positioned over the entire useful beam exit port during periods when the beam is not in use.

6.4.1.8 Beam Monitor System. Systems of greater than 150 kVp manufactured after the effective date of these regulations shall be provided with a beam monitor system which:

6.4.1.8.1 Shall have the detector of the monitor system interlocked to prevent incorrect positioning;

6.4.1.8.2 Shall not allow irradiation until a preselected value of exposure has been made at the treatment control panel;

6.4.1.8.3 Shall independently terminate irradiation when the preselected exposure has been reached;

6.4.1.8.4 Shall be so designed that, in the event of a system malfunction or electrical power failure, the dose administered to a patient prior to the system malfunction or power failure can be accurately determined;

6.4.1.8.5 Shall have a display at the control panel from which the dose at a reference point in soft tissue can be calculated;

6.4.1.8.6 Shall have a control panel display which maintains the administered dose reading until intentionally reset to zero; and

6.4.1.8.7 Shall have a control panel display which does not have scale multiplying factors and utilizes a design such that increasing dose is displayed by increasing numbers.

6.4.1.9 Timer.

6.4.1.9.1 A timer which has a display shall be provided at the treatment control panel. The timer shall have a preset time selector.

6.4.1.9.2 The timer shall activate with the production of radiation and retain its reading after irradiation is interrupted. After irradiation is terminated and before irradiation can be reinitiated, it shall be necessary to reset the elapsed time indicator to zero.

6.4.1.9.3 The timer shall terminate irradiation when a preselected time has elapsed, if any dose monitoring system present has not previously terminated irradiation.

6.4.1.9.4 The timer shall permit accurate presetting and determination of exposure times as short as 1 second.

6.4.1.9.5 The timer shall not permit an exposure if set at zero.

6.4.1.9.6 The timer shall not activate until the shutter is opened when irradiation is controlled by a shutter mechanism unless calibration includes a timer factor to compensate for mechanical lag.

6.4.1.9.7 Timers shall be accurate to within 1 percent of the selected value or 1 second, whichever is greater.

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6.4.1.10. Control Panel Functions. The control panel, in addition to the displays required in other provisions of this Part, shall have:

6.4.1.10.1 An indication of whether electrical power is available at the control panel and if activation of the x-ray tube is possible;

6.4.1.10.2 An indication of whether x-rays are being produced;

6.4.1.10.3 Means for indicating x-ray tube potential and current;

6.4.1.10.4 Means for terminating an exposure at any time;

6.4.1.10.5 A locking device which will prevent unauthorized use of the x-ray system;  
and

6.4.1.10.6 For x-ray systems manufactured after May 25, 2001, a positive display of specific filters in the beam.

6.4.1.11 Multiple Tubes. When a control panel may energize more than one x-ray tube:

6.4.1.11.1 It shall be possible to activate only one x-ray tube at any time;

6.4.1.11.2 There shall be an indication at the control panel identifying which x-ray tube is activated; and

6.4.1.11.3 There shall be an indication at the tube housing assembly when that tube is energized.

6.4.1.12 Source to Skin Distance (SSD). There shall be means of determining initially the SSD to within 1 centimeter and of producing this measurement to within 2 millimeters thereafter.

6.4.1.13 Shutters. Unless it is possible to bring the x-ray output to the prescribed exposure parameters within 5 seconds, the beam shall be attenuated by a shutter having a lead equivalency not less than that of the tube housing assembly.

6.4.1.13.1 After the unit is at operating parameters, the shutter shall be controlled electrically by the operator from the control panel.

6.4.1.13.2 An indication of shutter position shall appear on the control panel.

6.4.2 Facility Design Requirements for Therapy X-ray Systems Capable of Operating Above 50 kVp.

6.4.2.1 Aural Communication. Provision shall be made for two-way aural communication between the patient and the operator at the control panel. However, where excessive noise levels or treatment requirements make aural communication impractical, other methods of communication shall be used.

6.4.2.2 Viewing Systems.

6.4.2.2.1 Windows, mirrors, closed circuit television, or an equivalent system shall be provided to permit continuous observation of the patient during irradiation and shall be so located that the operator can observe the patient from the control panel.



6.4.2.2.2 When the primary viewing system is by electronic means, an alternate viewing system, which may be electronic, shall be available for use in the event of failure of the primary viewing system.

6.4.2.2.3 Should both systems described in RHB 6.4.2.2.2 above fail or be inoperative, treatment shall not be performed with the unit until one of the systems is restored.

6.4.2.3 Barriers. With equipment operating at voltages above fifty (50) kVp, the required barriers shall be an integral part of the building.

6.4.2.4 Multiple Access. Treatment rooms to which access is possible through more than one entrance shall be provided with flashing warning lights in a readily observable position near the outside of all access doors, which will indicate when the useful beam is "on". Interlocks shall be provided such that all entrance doors must be closed, including doors to any interior booths, before treatment can be initiated or continued. If the radiation beam is interrupted by any door opening, it shall not be possible to restore the machine to operation without closing the door and reinitiating irradiation by manual action at the control panel.

#### 6.4.3 Additional Requirements for X-ray Systems Capable of Operating Above 150 kVp.

6.4.3.1 All protective barriers shall be fixed except for entrance doors or beam interceptors.

6.4.3.2 The control panel shall be within a protective booth equipped with an interlocked door or located outside the treatment room or in a totally enclosed booth, which has a ceiling, inside the room.

6.4.3.3 Interlocks shall be provided such that all entrance doors must be closed, including doors to any interior booths, before treatment can be initiated or continued. If the radiation beam is interrupted by any door opening, it shall not be possible to restore the machine to operation without closing the door and reinitiating irradiation by manual action at the control panel.

6.4.3.4 When any door referred to in RHB 6.4.3.3 is opened while the x-ray tube is activated, the exposure at a distance of 1 meter from the source shall be reduced to less than 100 milliroentgen per hour.

6.4.3.5 A scram button or other emergency power cut-off switch shall be located and easily identifiable in all accessible high radiation areas.

6.4.3.6 All safety and warning devices, including interlocks, shall be tested and appropriately serviced after each 500 hours of operation or at intervals not to exceed six months, whichever comes first. Documentation shall be kept and available for review of all testing and servicing.

#### 6.4.4 Surveys, Calibrations, and Spot Checks.

##### 6.4.4.1 Surveys.

6.4.4.1.1 All new facilities, and existing facilities not previously surveyed shall have a survey made by or under the direction of a qualified expert who is authorized by the Department to perform such surveys. Such surveys shall be done after any change in the facility or equipment which might cause a significant increase in radiation hazard. A record shall be made of the therapeutic operating conditions and radiation levels measured at specific control points. One of these control points must be at the normal work station of the operator.

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6.4.4.1.2 The registrant shall obtain a written report of the survey from the qualified expert. A copy of the initial report shall be transmitted by the registrant to the Department within 30 days of the first patient treatment following the survey. The registrant shall maintain all subsequent reports for inspection by the Department.

6.4.4.1.3 The survey and report shall indicate all instances where the installation, in the opinion of the qualified expert, is in violation of applicable rules or regulations.

6.4.4.1.4 The registrant shall maintain sufficient calibrated and operable radiation survey instruments to make physical radiation surveys as required by this part of these regulations. Each radiation survey instrument shall be response checked every three months and calibrated once a year. After each instrument servicing, a record shall be maintained of the latest response check or calibration date.

6.4.4.2 Calibrations. Calibrations of x-ray systems subject to the requirements of this Part shall meet the following requirements:

6.4.4.2.1 The calibration of an x-ray system shall be performed at intervals not to exceed 1 year and after any change or replacement of components which could cause a change in the radiation output on output.

6.4.4.2.2 The calibration of the radiation output of the x-ray system shall be performed by or under the direction of a radiological physicist who is physically present at the facility during such calibration.

6.4.4.2.3 Calibration of the radiation output of an x-ray system shall be performed with a calibrated dosimetry system. The calibration of such system shall be traceable to a national standard. The system shall have been calibrated within the preceding two years.

6.4.4.2.4 The calibration shall be such that the dose at a reference point in a water or tissue equivalent phantom can be calculated to within an uncertainty of 5 percent. For superficial units, free-in-air calibrations are acceptable.

6.4.4.2.5 The calibration of the x-ray system shall include, but not be limited to, the following determinations:

6.4.4.2.5.1 Verification that the x-ray system is operating in compliance with the design specifications;

6.4.4.2.5.2 Half-value layer for each kV setting and filter combination used;

6.4.4.2.5.3 The exposure rates as a function of field size, technique factors, filter, and treatment distance used; and

6.4.4.2.5.4 The degree of congruence between the radiation field and the field indicated by the localizing device if such device is present which shall be within 5 millimeters for any field edge.

6.4.4.2.6 Records of calibrations shall be maintained by the registrant for 5 years after completion of the calibration. The records shall be available for review.

6.4.4.2.7 A copy of the most recent x-ray system calibration shall be available at or in the general area of the control panel.

6.4.4.2.8 A copy of the most recent x-ray system calibration shall be submitted to the Department upon request.

6.4.4.3 Spot Checks. Spot checks shall be performed on x-ray systems capable of operation at greater than 150 kVp. Such spot checks shall meet the following requirements:

6.4.4.3.1 The spot check procedures shall be in writing and shall have been developed by a radiological physicist. A copy of the procedures shall be submitted to the Department upon request.

6.4.4.3.2 If the radiological physicist does not perform the spot check measurement, the results of the spot check measurements shall be reviewed by the radiological physicist within 7 treatment days and a record made of the review.

6.4.4.3.3 The spot check procedures shall specify the frequency at which tests or measurements are to be performed. The spot check procedures shall specify that the spot check shall be performed during the calibration specified in RHB 6.4.4.2. The acceptable tolerance for each parameter measured in the spot check when compared to the value for that parameter determined in the calibration specified in RHB 6.4.4.2 shall be stated.

6.4.4.3.4 The written spot check procedures shall include special operating instructions which shall be carried out whenever a parameter in RHB 6.4.4.2 exceeds an acceptable tolerance.

6.4.4.3.5 Whenever a spot check indicates a significant change in the operating characteristics of a system, as specified in the spot check procedures, the system shall be recalibrated, as required in RHB 6.4.4.2.

6.4.4.3.6 Records of spot check measurements and any necessary corrective actions shall be maintained by the registrant for 2 years after completion of the spot check measurements. A copy of the most recent spot check shall be available at or in the area of the control panel.

6.4.4.3.7 Where a spot check involves a radiation measurement, such measurement shall be obtained using a system satisfying the requirements of RHB 6.4.4.2.3 or which has been intercompared with a system meeting those requirements within the previous year.

6.4.4.4 Prohibited Use. The x-ray system shall not be used in the administration of radiation therapy unless the requirements of RHB 6.4.4.2 and RHB 6.4.4.3 have been met.

## RHB 6.5 X-ray and Electron Therapy Systems with Energies of 1 MeV and Above.

These rules shall apply to facilities using therapy systems with energies 1 MeV and above. The records shall be maintained and available for review.

6.5.1 Leakage Radiation to the Patient Area. Equipment shall meet the following requirements:

6.5.1.1 For operating conditions producing maximum leakage radiation, the absorbed dose in rads (Grays) due to leakage radiation, including x-rays and electrons, at any point in a circular plane of 2 meters radius centered on and perpendicular to the central axis of the beam at the isocenter or normal treatment distance and outside the maximum useful beam size shall not exceed 0.1 percent of the maximum absorbed dose in rads (Grays) of the unattenuated useful beam measured at the point of intersection of the central axis of the beam and plane surface. Measurements excluding those for neutrons shall be averaged over an area up to, but not exceeding, 100 square centimeters at the positions specified. Measurements of the portion of the leakage radiation dose contributed by neutrons shall be averaged over an area up to, but not exceeding, 200 square centimeters.

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6.5.1.2 For each system, the registrant shall determine or obtain from the manufacturer the leakage radiation existing at the positions specified in RHB 6.5.1.1 for the specified operating conditions. Records on leakage radiation measurements shall be maintained for inspection by the Department.

6.5.2 Beam-Limiting Devices. Adjustable or interchangeable beam limiting devices shall be provided and such devices shall transmit no more than 2 percent of the useful photon beam at the normal treatment distance for the portion of the useful beam which is to be attenuated by the beam-limiting device. The neutron component of the useful beam shall not be included in this requirement.

#### 6.5.3 Filters.

6.5.3.1 Each filter which is removable from the system shall be clearly marked with an identification number. Documentation available at the control panel shall contain a description of the filter. For wedge filters, the wedge angle shall appear on the wedge or wedge tray (if permanently mounted to the tray). If the wedge tray is damaged, the wedge transmission factor shall be redetermined.

6.5.3.2 If the absorbed dose rate data required by RHB 6.5.15 relates exclusively to operation with a field-flattening filter or beam scattering foil in place, such filter shall be removable only by the use of tools.

6.5.3.3 For equipment installed after May 25, 2001, which utilizes a system of wedge filters, interchangeable field-flattening filters, or interchangeable beam scattering foils:

6.5.3.3.1 Irradiation shall not be possible until a selection of a filter or a positive selection to use "no filter" has been made at the treatment control panel, either manually or automatically.

6.5.3.3.2 An interlock system shall be provided to prevent irradiation if the filter selected is not in the correct position.

6.5.3.3.3 A display shall be provided at the treatment control panel showing filters in use.

6.5.3.3.4 An interlock shall be provided to prevent irradiation if any filter selection operation carried out in the treatment room does not agree with the filter selection operation carried out at the treatment control panel.

6.5.3.4 Attenuation of wedges and compensator devices must be checked before the device is placed into service. A visual inspection of the mechanical integrity of these accessories must be done monthly.

6.5.4 Beam Quality. The registrant shall determine data sufficient to assure that the following beam quality requirements in tissue equivalent material are met:

6.5.4.1 The absorbed dose resulting from x-rays in a useful electron beam at a point on the central axis of the beam 10 centimeters greater than the practical range of the electrons shall not exceed the values stated in Table 2. Linear interpolation shall be used for values not stated.

Table 2  
X-ray Absorbed Dose

Maximum Energy of Electron Beam in MeV	X-ray Absorbed Dose As a Fraction of Maximum Absorbed Dose
1	0.03
15	0.05
35	0.10
50	0.20

6.5.4.2 Compliance with RHB 6.5.4 shall be determined using:

6.5.4.2.1 A measurement within a tissue equivalent phantom with the incident surface of the phantom at the normal treatment distance and normal to the central axis of the beam;

6.5.4.2.2 The largest field size available which does not exceed 15 centimeters by 15 centimeters; and

6.5.4.2.3 A phantom whose cross-sectional dimensions exceed the measurement radiation field by at least 5 centimeters and whose depth is sufficient to perform the required measurement.

6.5.4.3 The measured ionization at the surface relative to maximum ionization along the central axis shall not exceed the limits stated in Table 3. Linear interpolation shall be used for values not stated.

Table 3

Maximum Photon Energy in MeV	Measured Ionization at surface relative to Maximum Ionization along central axis
1	0.80
2	0.70
5	0.60
15	0.50
35	0.40
50	0.20

6.5.4.4 Compliance with RHB 6.5.4.3 shall be determined by measurements made:

6.5.4.4.1 Within a tissue equivalent phantom using an instrument which will allow extrapolation to the surface absorbed dose;

6.5.4.4.2 Using a phantom whose size and placement meet the requirements of RHB 6.5.4.2;

6.5.4.4.3 After removal of all beam modifying devices which can be removed without the use of tools, except for beam scattering or beam-flattening filters; and

6.5.4.4.4 Using the largest field size available which does not exceed 15 centimeters by 15 centimeters.

6.5.5 Beam Monitors. All therapy systems shall be provided with radiation detectors in the radiation head.

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6.5.5.1 Equipment manufactured after January 1, 1994, shall be provided with at least two independent radiation detectors. The detectors shall be incorporated into two independent dose monitoring systems.

6.5.5.2 Equipment manufactured before January 1, 1994, shall be provided with at least one radiation detector. This detector shall be incorporated into a primary dose monitoring system.

6.5.5.3 The detector and the system into which that detector is incorporated shall meet the following requirements:

6.5.5.3.1 Each detector shall be removable only with tools and shall be interlocked to prevent incorrect positioning.

6.5.5.3.2 Each detector shall form part of a dose monitoring system from whose readings in dose monitor units the absorbed dose at a reference point in the treatment volume can be calculated.

6.5.5.3.3 Each dose monitoring system shall be capable of independently monitoring, interrupting, and terminating irradiation.

6.5.5.3.4 For new equipment, the design of the dose monitoring systems shall assure that: a) Malfunctioning of one system shall not affect the correct functioning of the secondary system; and b) Failure of any element common to both systems which could affect the correct function of both systems shall terminate irradiation.

6.5.5.3.5 Each dose monitoring system shall have a legible display at the treatment control panel. For new equipment, each display shall:

6.5.5.3.5.1 Maintain a reading until intentionally reset to zero;

6.5.5.3.5.2 Have only one scale and no scale multiplying factors for each mode of operation; and

6.5.5.3.5.3 Utilize a design such that increasing dose is displayed by increasing numbers and shall be so designed that, in the event of an overdosage of radiation, the absorbed dose may be accurately determined; and

6.5.5.3.6 In the event of power failure, the dose monitoring information required by RHB 6.5.5.3.5 displayed at the control panel at the time of failure shall be retrievable in at least one system for a 20 minute period of time.

6.5.6 Beam Symmetry. In new equipment inherently capable of producing useful beams with unattenuated asymmetry exceeding 5 percent, the asymmetry of the radiation beam in two orthogonal directions shall be monitored before the beam passes through the beam-limiting device. Facilities shall be provided so that, if the difference in dose rate between one region and another region symmetrically displaced from the central axis of the beam exceeds 5 percent of the central axis dose rate, indication of this condition is made at the control panel; and if this difference exceeds 10 percent, the irradiation is terminated.

### 6.5.7 Selection and Display of Dose Monitor Units.

6.5.7.1 Irradiation shall not be possible until a selection of a number of dose monitor units has been made at the treatment control panel.

6.5.7.2 The preselected number of dose monitor units shall be displayed at the treatment control panel until reset manually for the next irradiation.

6.5.7.3 After termination of irradiation, it shall be necessary to manually reset the dosimeter display to zero before subsequent treatment can be initiated.

6.5.7.4 For new equipment, after termination of irradiation, it shall be necessary to manually reset the preselected dose monitor units before irradiation can be initiated.

6.5.8 Termination of Irradiation by the Dose Monitoring System or Systems during Stationary Beam Therapy.

6.5.8.1 Each primary system shall terminate irradiation when the preselected number of dose monitor units has been detected by the system.

6.5.8.2 If original design of the equipment included a secondary dose monitoring system, that system shall be capable of terminating irradiation when not more than 15 percent or 40 dose monitor units, whichever is smaller, above the preselected number of dose monitor units set at the control panel has been detected by the secondary dose monitoring system.

6.5.8.3 For equipment manufactured after January 1, 1994, a secondary dose monitoring system shall be present. That system shall be capable of terminating irradiation when not more than 10 percent or 25 dose monitoring units, whichever is smaller, above the preselected number of dose monitor units set at the control panel has been detected by the secondary dose monitoring system.

6.5.8.4 For equipment manufactured after January 1, 1994, an indicator on the control panel shall show which dose monitoring system has terminated irradiation.

6.5.9 Interruption Switches. It shall be possible to interrupt irradiation and equipment movements at any time from the operator's position at the treatment control panel. Following an interruption, it shall be possible to restart irradiation without any reselection of operating conditions. If any change is made of a preselected value during an interruption, irradiation and equipment movements shall be automatically terminated.

6.5.10 Termination Switches. It shall be possible to terminate irradiation and equipment movements or go from any interruption condition to termination conditions at any time from the operator's position at the treatment control panel.

6.5.11 Timer.

6.5.11.1 A timer which has a display shall be provided at the treatment control panel. The timer shall have a preset time selector and an elapsed time indicator.

6.5.11.2 The timer shall be a cumulative timer which activates with the production of radiation and retains its reading after irradiation is interrupted or terminated. After irradiation is terminated and before irradiation can be reinitiated, it shall be necessary to reset the elapsed time indicator to zero.

6.5.11.3 For equipment manufactured after May 25, 2001, after termination of irradiation and before irradiation can be reinitiated, it shall be necessary to manually reset the preset time selector.

6.5.11.4 The timer shall terminate irradiation when a preselected time has elapsed if the dose monitoring systems have not previously terminated irradiation.

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6.5.12 Selection of Radiation Type. Equipment capable of both x-ray therapy and electron therapy shall meet the following additional requirements:

6.5.12.1 Irradiation shall not be possible until a selection of radiation type has been made at the treatment control panel.

6.5.12.2 An interlock system shall be provided to ensure that the equipment can emit only the radiation type which has been selected.

6.5.12.3 An interlock system shall be provided to prevent irradiation if any selected operations carried out in the treatment room do not agree with the selected operations at the treatment control panel.

6.5.12.4 An interlock system shall be provided to prevent irradiation with x-ray except to obtain a port film when electron applicators are fitted.

6.5.12.5 An interlock system shall be provided to prevent irradiation with electrons when accessories specific for x-ray therapy are fitted.

6.5.12.6 The radiation type selected shall be displayed at the treatment control panel before and during irradiation.

6.5.13 Selection of Energy. Equipment capable of generating radiation beams of different energies shall meet the following requirements:

6.5.13.1 Irradiation shall not be possible until a selection of energy has been made at the treatment control panel.

6.5.13.2 An interlock system shall be provided to prevent irradiation if any selected operations carried out in the treatment room do not agree with the selected operations carried out at the treatment control panel.

6.5.13.3 The nominal energy value selected shall be displayed at the treatment control panel before and during irradiation.

6.5.13.4 For new equipment, an interlock system utilizing monitoring of the bending magnet current shall be provided to terminate irradiation if the energy of the electrons striking the target or electron window deviates by more than 20 percent or 3 MeV, whichever is smaller, from the selected nominal energy.

6.5.14 Selection of Stationary Beam Therapy or Moving Beam Therapy. Equipment capable of both stationary beam therapy and moving beam therapy shall meet the following requirements:

6.5.14.1 Irradiation shall not be possible until a selection of stationary beam therapy or moving beam therapy has been made at the treatment control panel.

6.5.14.2 An interlock system shall be provided to ensure that the equipment can operate only in the mode which has been selected.

6.5.14.3 An interlock system shall be provided to prevent irradiation if any selected operations carried out in the treatment room do not agree with the selected operations carried out at the treatment control panel.

6.5.14.4 The mode of operation shall be displayed at the treatment control panel.



6.5.14.5 An interlock system shall be provided to terminate irradiation if movement of the gantry:

6.5.14.5.1 Occurs during stationary beam therapy; or

6.5.14.5.2 Stops during moving beam therapy unless such stoppage is a preplanned function.

6.5.14.6 Moving beam therapy shall be controlled to obtain the selected relationships between incremental dose monitor units and incremental angle of movement:

6.5.14.6.1 An interlock system shall be provided to terminate irradiation if the number of dose monitor units delivered in any 10 degrees of arc differs by more than 20 percent from the selected value.

6.5.14.6.2 Where gantry angle terminates the irradiation in arc therapy, the dose monitor units shall differ by less than 5 percent from the value calculated from the absorbed dose per unit angle relationship.

6.5.14.7 Where the dose monitor system terminates the irradiation in moving beam therapy, the termination of irradiation shall be as required in RHB 6.5.8.

6.5.15 Absorbed Dose Rate. A system shall be provided from whose readings the absorbed dose rate at a reference point in the treatment volume can be calculated. The radiation detectors specified in RHB 6.5.5 may form part of this system. In addition:

6.5.15.1 The dose monitor rate shall be displayed at the treatment control panel.

6.5.15.2 If the equipment can deliver under any conditions an absorbed dose rate at the normal treatment distance more than twice the maximum value specified by the manufacturer for any machine parameter utilized, a device shall be provided which terminates irradiation when the absorbed dose rate exceeds a value twice the specified maximum. The dose rate at which the irradiation will be terminated shall be in a record maintained by the registrant.

6.5.16 Location of Virtual Source and Beam Orientation. The registrant shall determine, or obtain from the manufacturer, the location with reference to an accessible point on the radiation head of:

6.5.16.1 The x-ray target or the virtual source of x-rays; and

6.5.16.2 The electron window or the virtual source of electrons if the system has electron beam capabilities.

6.5.17 System Checking. Capabilities shall be provided so that all radiation safety interlocks can be checked for operation.

6.5.18 Facility and Shielding Requirements. In addition to RHB 6.2 of these rules, the following design requirements shall apply:

6.5.18.1 Protective Barriers. All protective barriers shall be fixed except for entrance doors or beam interceptors.

6.5.18.2 Control Panel. The control panel shall be located outside the treatment room.

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### 6.5.18.3 Viewing Systems.

6.5.18.3.1 Windows, mirrors, closed-circuit television, or an equivalent system shall be provided to permit continuous observation of the patient following positioning and during irradiation and shall be so located that the operator may observe the patient from the control panel.

6.5.18.3.2 When the primary viewing system is by electronic means, an alternate viewing system, which may be electronic, shall be available for use in the event of failure of the primary viewing system.

6.5.19 Aural Communications. Provision shall be made for continuous two-way aural communication between the patient and the operator at the control panel independent of the particle accelerator. However, where excessive noise levels or treatment requirements make aural communication impractical, other methods of communication shall be used. When this is the case, a description of the alternate method shall be submitted to, and approved by the Department.

6.5.20 Room Entrances. Treatment room entrances shall be provided with warning lights in readily observable positions near the outside of all accessible doors to indicate when the useful beam is "on" and "off".

6.5.21 Entrance Interlocks. Interlocks shall be provided such that all entrance doors must be closed before treatment can be initiated or continued. If the radiation beam is interrupted by any door opening, it shall not be possible to restore the machine to operation without closing the door and reinitiating irradiation by manual action at the control panel.

RHB 6.6 Operational Requirements for X-ray and Electron Therapy Systems with Energies of 1 MeV and Above.

6.6.1 Radiological Physics Support. The services of a radiological physicist shall be utilized in facilities having therapy systems with energies of 1 MeV and above. The radiological physicist shall be responsible for:

6.6.1.1 Calibration;

6.6.1.2 Supervision and review of patient dosimetry;

6.6.1.3 Beam data acquisition and storage for computer dosimetry, and supervision of its use;

6.6.1.4 Quality assurance, including spot check review; and

6.6.1.5 Consultation with the radiation therapist in treatment planning, as needed.

6.6.1.6 The radiological physicist described in RHB 6.6.1 shall also be available and responsive to immediate problems or emergencies.

### 6.6.2 Surveys.

6.6.2.1 All new facilities, and existing facilities not previously surveyed, shall have a survey made by, or under the direction of, the radiological physicist. In addition, such surveys shall be done after any change in the facility or equipment which might cause a significant increase in radiation hazard.

6.6.2.2 The registrant shall obtain a written report of the survey and a copy of the report shall be transmitted by the registrant to the Department within 30 days of the first patient treatment following the survey.

6.6.2.3 The survey and report shall indicate all instances where the installation, in the opinion of the radiological physicist, is in violation of applicable rules or regulations.

6.6.3 Calibrations.

6.6.3.1 The calibration of systems subject to RHB 6.5 shall be performed in accordance with an established calibration protocol acceptable to the Department before the system is first used for irradiation of a patient and thereafter at time intervals which do not exceed 12 months and after any change which might significantly alter the calibration, spatial distribution, or other characteristics of the therapy beam. The protocol used shall be a nationally accepted standard, such as one established by the American Association of Physicists in Medicine.

6.6.3.2 The calibration shall be performed by or under the direct supervision of the radiological physicist who is physically present at the facility during the calibration.

6.6.3.3 Calibration radiation measurements required by RHB 6.6.3 shall be performed using a dosimetry system:

6.6.3.3.1 Having a calibration factor traceable to a national standard;

6.6.3.3.2 Which has been calibrated within the previous 2 years and after any servicing that may have affected its calibration;

6.6.3.3.3 Which has been calibrated in such a fashion that an uncertainty can be stated for the radiation quantities monitored by the system; and

6.6.3.3.4 Which has had constancy checks performed on the system as specified by the radiological physicist.

6.6.3.4 Calibrations shall be in sufficient detail that the dose at a reference point in tissue equivalent phantom may be calculated to within an uncertainty of 5 percent.

6.6.3.5 The calibration of the therapy unit shall include, but not be limited to, the following determinations:

6.6.3.5.1 Verification that the equipment is operating in compliance with the design specifications concerning the light localizer, all patient positioning lights, and back-pointer alignment with the isocenter when applicable, variation in the axis of rotation for the table, gantry, and collimator system, and beam flatness and symmetry at the specified depth.

6.6.3.5.2 The absorbed dose rate at various depths in a tissue equivalent phantom for the range of field sizes used, for each effective energy, that will verify the accuracy of the dosimetry of all therapy procedures utilized with that therapy beam.

6.6.3.5.3 The uniformity of the radiation field to include symmetry, flatness, and dependence on gantry angle.

6.6.3.5.4 Verification that existing isodose charts applicable to the specific machine continue to be valid or are updated to existing machine conditions.

6.6.3.5.5 Verification of transmission factors for all accessories such as wedges, shadow trays, and/or universal beam modifying devices.

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6.6.3.6 Records of calibration measurements under RHB 6.6.3.1 and dosimetry system calibrations under RHB 6.6.3.3 shall be maintained for 5 years after completion of the full calibration.

6.6.3.7 A copy of the latest calibrated absorbed dose rate measured pursuant to RHB 6.6.3.1 shall be available.

6.6.4 Spot Checks. Spot checks shall be performed on systems subject to RHB 6.5 during calibrations and at intervals established by the radiological physicist, not to exceed monthly, using a nationally accepted standard such as one established by the American College of Radiology, American Association of Physicists in Medicine, American College of Medical Physics, etc.

6.6.4.1 The spot check procedures shall be in writing and shall have been developed by the radiological physicist. A copy of the procedure shall be submitted to the Department upon request.

6.6.4.2 If a radiological physicist does not perform the spot check measurements, the results of the spot check measurements shall be reviewed by the radiological physicist within 7 treatment days.

6.6.4.3 The spot check procedures shall specify the frequency at which tests or measurements are to be performed and the acceptable tolerance for each parameter measured in the spot check when compared to the value for that parameter determined in the calibration.

6.6.4.4 Spot checks shall be made at a depth beyond the calibration depth but no deeper than the 80% ionization depth.

6.6.4.5 Where a system has built-in devices which provide a measurement of any parameter during irradiation, such measurement shall not be utilized as a spot check measurement.

6.6.4.6 A parameter exceeding a tolerance set by the radiological physicist shall be corrected before the system is used for patient irradiation.

6.6.4.7 Whenever a spot check indicates a significant change in the operating characteristics of a system, as specified in the radiological physicist's spot check procedures, the system shall be recalibrated, as required in RHB 6.6.3.

6.6.4.8 Records of spot check measurements and any necessary corrective actions shall be maintained by the registrant for a period of 3 years after completion of the spot check measurements.

6.6.4.9 Whenever a spot check requires a radiation measurement, such measurement shall be obtained using a system satisfying the requirements of RHB 6.6.3.3 or which has been intercompared with a system meeting those requirements within the previous year.

6.6.5 Prohibited Use. The system shall not be used in the administration of radiation therapy unless the requirements of RHB 6.6.1 through RHB 6.6.4 have been met.

#### **RHB 6.7 Misadministration Report Requirements of All Therapeutic X-ray Systems.**

All facilities utilizing therapeutic x-ray systems are subject to the misadministration reporting requirements in RHB 1.11.

PART VII  
RADIATION SAFETY REQUIREMENTS FOR ANALYTICAL X-RAY EQUIPMENT

RHB 7.1 Scope.

This part establishes special requirements for analytical X-ray equipment. The provisions of this part are in addition to, and not in substitution for, other applicable provisions of these regulations.

RHB 7.2 Electron Microscopes.

Electron microscopes shall be exempt from the other requirements of this Part except that they:

7.2.1 Shall be registered with the Department; and

7.2.2 Shall be installed, shielded, and operated in such a manner that no one shall be exposed beyond the limits defined in RHB 3.4.1 of these regulations.

RHB 7.3 Hand-Held Analytical X-ray Equipment.

Hand-held analytical x-ray equipment shall be exempt from the other requirements of this part except that:

7.3.1 All operators of hand-held x-ray equipment shall complete documented training as outlined in RHB 7.9.

7.3.2 All hand-held analytical equipment shall have an interlock system that prevents the operation of the unit unless the x-ray exit port is in contact with or in close proximity to the item being irradiated.

7.3.3 Equipment shall be operated in accordance with the manufacturer's specifications.

RHB 7.4 General Requirements for All Analytical X-ray Equipment.

7.4.1 Registration. All requirements of RHB 2.3 and 2.4 apply.

7.4.2 Posting. Each area or room containing analytical x-ray equipment shall be conspicuously posted with a sign or signs bearing the radiation symbol and the words "CAUTION - X-RAY EQUIPMENT", or words having similar intent.

7.4.3 Labeling. All analytical x-ray equipment shall be labeled with a readily discernible sign or signs bearing the radiation symbol, and

7.4.3.1 A label bearing the words "Caution - Radiation - This Equipment Produces Radiation When Energized" or words having a similar intent shall be placed near any switch which energizes an x-ray tube.

7.4.3.2 A sign bearing the words "Caution - High Intensity X-ray Beam", or words having a similar intent on the x-ray source housing, shall be placed in the area immediately adjacent to each tube head. The sign shall be so located that it is clearly visible to any person operating, aligning, or adjusting the unit, or handling or changing a sample.

7.4.4 Warning Lights.

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7.4.4.1 An easily visible warning light labeled with the words "X-RAY ON," or words having a similar intent, shall be located near any switch that energizes an X-ray tube and shall be illuminated only when the tube is energized.

7.4.4.2 Warning lights shall have fail-safe characteristics.

#### 7.4.5 Safety Devices.

7.4.5.1 Any temporary alteration to safety devices, such as by-passing interlocks or removing shielding shall be:

7.4.5.1.1 Approved in advance by the radiation safety officer.

7.4.5.1.2 Specified in writing and posted near the x-ray tube housing.

7.4.5.1.3 Terminated as soon as possible.

7.4.5.1.4 Documented and the documentation maintained for inspection by the Department. This documentation shall contain: the nature of the alteration, and the signature and date of the individuals who made the alteration and who restored the unit to original condition.

7.4.5.2 Tests of all safety devices such as interlocks, shutters, and warning lights shall be conducted annually for all operable analytical x-ray equipment. Documentation of such tests shall be maintained for inspection by the Department.

7.4.5.3 The inspection and testing of safety devices shall not be a substitute for a radiation area survey.

7.4.5.4 Interlocks shall not be used to de-activate the x-ray tube, except in an emergency or during testing of the interlock system. After such shut-off, it shall be possible to restore the machine to full operation only from the control panel.

7.4.5.5 Unused ports on radiation source housings shall be secured in the closed position in a manner to prevent inadvertent opening.

7.4.6 Each x-ray tube housing shall be so constructed that with all shutters closed the leakage radiation measured at a distance of 5 cm from its surface does not exceed 2.5 milliRoentgen per hour.

7.4.7 Generator Cabinet. Each X-ray generator shall be supplied with a protective cabinet which limits leakage radiation measured at a distance from its surface to 0.25 milliRoentgen per hour.

7.4.8 Radiation in excess of the limits specified in RHB 7.4.6 and RHB 7.4.7 shall be eliminated prior to using the analytical x-ray equipment.

7.4.9 Repair or Modification of X-ray Tube System. Except as specified in RHB 7.4.5.1. No operation involving removal of covers, shielding materials or tube housings or modifications to shutters, collimators, or beam stops shall be performed without ascertaining that the tube is off and will remain off until safe conditions have been restored. The main switch, rather than interlocks, shall be used for routine shutdown in preparation for repairs.

## RHB 7.5 Additional Requirements for Open Beam Configuration X-ray Equipment.

7.5.1 Safety Device. A device which prevents the entry of any portion of an individual's body into the primary beam path or which causes the beam to be shut off upon entry into its path shall be provided on all open-beam configuration x-ray equipment. A registrant may apply to the Department for an exemption from the requirement of a safety device. Such application shall include:

7.5.1.1 A description of the various safety devices that have been evaluated;

7.5.1.2 The reason each of these devices cannot be used;

7.5.1.3 A description of the alternative methods that will be employed to minimize the possibility of an accidental exposure, including procedures to assure that operators and others in the area will be informed of the absence of the safety devices; and

7.5.1.4 The procedure for notifying proper persons in the event of an accident. This list shall include the names, addresses, and telephone numbers.

7.5.2 The operator shall be in immediate attendance at all times when the equipment is in operation except when the area is locked to protect against unauthorized or accidental entry.

7.5.3 When not in use, equipment shall be secured in such a manner as to be inoperable by unauthorized persons.

7.5.4 Warning Devices. Open-beam configuration x-ray equipment shall be provided with a readily discernible indication of:

7.5.4.1 X-ray tube status (ON-OFF) located near the radiation source housing, if the primary beam is controlled in this manner; or

7.5.4.2 Shutter status (OPEN-CLOSED) located near each port on the radiation source housing, if the primary beam is controlled in this manner.

7.5.5 Warning devices shall be labeled so that their purpose is easily identified.

7.5.6 Warning devices shall have fail-safe characteristics.

7.5.6.1 Where couplings exist, e.g., between the x-ray tube and the collimator of the diffractometer, etc., they shall prevent radiation from escaping the coupling.

7.5.6.2 Each port of the radiation source housing shall be provided with a beam shutter interlocked with the x-ray apparatus coupling, or collimator, in such a way that the port will be open only when the collimator or coupling is in place.

7.5.7 Operating Procedures. The registrant shall create and make available to x-ray operators written operating procedures. The procedures shall include, but not be limited to:

7.5.7.1 Policies and procedures for personnel monitoring.

7.5.7.2 Policies and procedures for controlling access to radiation areas.

7.5.7.3 Policies and procedures for locking and securing the x-ray unit.

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7.5.7.4 Policies and procedures for pregnant employees.

7.5.7.5 Policies and procedures for training new employees.

7.5.8 Operator training.

7.5.8.1 No person shall be permitted to operate, repair, modify, or maintain x-ray equipment unless such person has received instruction and demonstrated competence in:

7.5.8.1.1 Identification of radiation hazards associated with the use of the equipment;

7.5.8.1.2 Significance of the various radiation warning and safety devices incorporated into the equipment or the reasons they have not been installed on certain pieces of equipment and the extra precautions required in such cases;

7.5.8.1.3 Proper operation of the equipment per manufacturer's guidelines and registrant's written operating procedures;

7.5.8.1.4 Radiation Survey Instruments. Operation, calibration, limitations, and survey techniques, if applicable;

7.5.8.1.5 Characteristics of ionizing radiation;

7.5.8.1.6 Methods of controlling radiation dose;

7.5.8.1.7 Units of radiation dose;

7.5.8.1.8 Personnel monitoring and the use of personnel monitoring equipment;

7.5.8.1.9 Symptoms of an acute localized exposure;

7.5.8.1.10 Proper procedures for reporting an actual or suspected overexposure; and

7.5.8.1.11 The regulations contained in this Part and the applicable sections of Part III.

7.5.8.2 Instruction and demonstration of competence shall be documented in writing and these records shall be available for review.

**RHB 7.6 Additional Requirements for Enclosed Beam X-ray Equipment. To Include Stationary, Mobile, and Portable Units.**

7.6.1 The radiation source, sample, detector and analyzing crystal (if used) shall be enclosed in a chamber or coupled chambers that cannot be entered by any part of the body during normal operation.

7.6.2 The sample chamber closure shall be interlocked with the x-ray tube high voltage supply or a shutter in the primary beam so that no x-ray beam can enter the sample chamber while it is open unless the interlock has been conspicuously and deliberately defeated. The interlock required by this section shall be of fail-safe design or adequate administrative controls shall be exercised to ensure operations will not continue without a properly functioning interlock.



**RHB 7.7 Area Requirements for All Analytical X-ray Equipment.**

7.7.1 Radiation Levels. The local components of an analytical x-ray system shall be located and arranged and shall include sufficient shielding or have access control such that no radiation in any area surrounding the local component group which could result in a dose to an individual present therein in excess of the dose limits given in RHB 3.4. These levels shall be met at any specified tube rating.

7.7.2 Surveys, Tests and Inspections. Radiation surveys, as required by RHB 1.4 of all analytical x-ray systems to show compliance with RHB 7.7.1 shall be performed and records kept and available for review:

7.7.2.1 Upon installation of the equipment and at least once every twelve (12) months thereafter.

7.7.2.2 Following any change in the initial arrangement, number, or type of local components in the system.

7.7.2.3 Following any change in operating parameters.

7.7.2.4 Following any maintenance requiring the disassembly or removal of a local component of the system.

7.7.2.5 During the performance of maintenance and alignment procedures if the procedures require the presence of a primary x-ray beam when any local component in the system is disassembled or removed.

7.7.2.6 Any time a visual inspection of the local components in the system reveals an abnormal condition.

7.7.2.7 Whenever monitoring devices show a significant increase over the previous monitoring period or the readings are approaching the radiation dose limits.

7.7.3 Radiation survey measurements shall not be required if a registrant can demonstrate compliance to the satisfaction of the Department with RHB 7.7.1 in some other manner. An area monitor or monitors may be used in place of an annual radiation survey. The area monitor shall be placed on the unit and changed on at least a quarterly basis. The results shall be documented and available for review. If an area monitor result shows a substantial increase over previous results, perform a documented investigation including a radiation area survey.

7.7.4 Tests and inspections of all safety devices shall be performed at least yearly to ensure their proper operation. The results shall be documented and available for review in accordance with RHB 1.10.2.4.

**RHB 7.8 Radiation Survey Instruments.**

All provisions of RHB 1.4.4 apply.

**RHB 7.9 Personnel Requirements.**

7.9.1 Operator Training. No person shall be permitted to operate, repair, modify, or maintain analytical x-ray equipment unless such person has received instruction and demonstrated competence in:

7.9.1.1 Identification of radiation hazards associated with the use of the equipment;

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7.9.1.2 Significance of the various radiation warning and safety devices incorporated into the equipment, or the reasons they have not been installed on certain pieces of equipment and the extra precautions required in such cases;

7.9.1.3 Proper operation of the equipment per manufacturer's guidelines and registrant's written operating procedures as specified in RHB 7.9.3;

7.9.1.4 Characteristics of ionizing radiation;

7.9.1.5 Personnel and/or area monitoring and the use of personnel and/or area monitoring equipment, if applicable;

7.9.2 Instruction and demonstration of competence shall be documented in writing and these records shall be available for review.

7.9.3 Operating Procedures. The registrant shall create and make available to x-ray operators written operating procedures. The procedures shall include, but not be limited to:

7.9.3.1 Policies and procedures for personnel and/or area monitoring.

7.9.3.2 Policies and procedures for pregnant employees.

7.9.3.3 Policies and procedures for training new employees.

7.9.4 A copy of operator training provided as required by RHB 7.9.1 and a copy of normal operating procedures as required by RHB 7.9.3 shall be provided to the Department upon request.

RHB 7.10 Personnel Monitoring.

7.10.1 Personnel monitoring shall be required as outlined in RHB 3.12.

7.10.2 Finger or wrist dosimetric devices shall be provided to and shall be used by:

7.10.2.1 Analytical x-ray equipment workers using systems having an open-beam configuration and not equipped with a safety device; and

7.10.2.2 Personnel maintaining analytical or research and development x-ray equipment if the maintenance procedures required the presence of a primary x-ray beam when any local component in the analytical or research and development x-ray system is disassembled or removed.

PART VIII  
RADIATION SAFETY REQUIREMENTS FOR INDUSTRIAL USES OF RADIOGRAPHIC SOURCES

RHB 8.1 Scope.

The regulations in this part establish radiation safety requirements for industrial uses of X-ray machines. The requirements of this part are in addition to and not in substitution for the other requirements of these regulations.

RHB 8.2 Locking of X-ray Machines.

Each x-ray machine shall be provided with a locking device designed to prevent unauthorized or accidental production of radiation, and shall be kept locked at all times except when under the direct surveillance of a radiographer, radiographer's assistant, a radiation safety officer, or an operator, as applicable.

RHB 8.3 Permanent Storage Precautions.

Radiation machines shall be secured while in storage to prevent tampering or removal by unauthorized individuals.

RHB 8.4 Radiation Survey Instruments.

All provisions of RHB 1.4.4 apply.

RHB 8.5 Labeling.

There shall be a durable permanent label indicating the maximum operating current, kVp, the standard radiation symbol, and a caution notice which shall read as follows or similarly: "CAUTION-RADIATION; THIS EQUIPMENT PRODUCES RADIATION WHEN ENERGIZED" In addition, a label which reads, "CAUTION-RADIATION; THIS EQUIPMENT PRODUCES RADIATION WHEN ENERGIZED" shall be located near or adjacent to each switch that controls the production of x-rays.

RHB 8.6 Registration and Posting Requirements.

8.6.1 Posting. Each facility shall meet the requirements of RHB 2.3 and 2.4 of these regulations.

8.6.2 Areas in which radiography is being performed shall be conspicuously posted as required by RHB 3.15.

RHB 8.7 Minimum Personnel Radiation Safety Requirements for Radiation Safety Officers and Operators.

8.7.1 No registrant shall permit any individual to act as a radiation safety officer until such person:

8.7.1.1 Has been instructed in the subjects outlined in RHB 8.11 of this Part;

8.7.1.2 Has received copies of and instruction in: the regulations contained in this Part, Part IX, the applicable sections of Part III, and the registrant's operating and emergency procedures, and shall have demonstrated understanding thereof; and

8.7.1.3 Has demonstrated competence to use the X-ray machine, related handling tools, and survey instruments which will be employed in the assignment.

8.7.2 No registrant shall permit any individual to act as an operator or radiographer until such person:

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8.7.2.1 Has been instructed in the subjects outlined in RHB 8.11 of this Part;

8.7.2.2 Has received copies of and instruction in: Part IX, of these regulations, and the registrant's operating and emergency procedures, and shall have demonstrated understanding thereof; and

8.7.2.3 Has demonstrated competence to use, under the personal supervision of the Radiation Safety Officer, the X-ray machine, related handling tools, and survey instruments which will be employed in his assignment.

8.7.2.4 The registrant shall have all training procedures and testing documented in writing, and available for the Department's review.

### RHB 8.8 Operating and Emergency Procedures.

The registrant shall have written operating and emergency procedures. These procedures shall include instruction in:

8.8.1 The handling and use of X-ray machines to be employed such that no person is likely to be exposed to radiation doses in excess of the limits established in Part III of these regulations;

8.8.2 Methods and occasions for conducting radiation surveys;

8.8.3 Methods for controlling access to radiographic areas;

8.8.4 Methods for locking and securing X-ray machines, when not in use or in storage;

8.8.5 Personnel monitoring and the use of personnel monitoring equipment; including steps that must be taken by radiography personnel in the event a pocket dosimeter is found to be off-scale;

8.8.6 The proper handling of exposed personnel;

8.8.7 Minimizing exposure of individuals in the event of an accident;

8.8.8 The procedure for notifying proper persons in the event of an accident. This shall include the listing of names, addresses, and telephone numbers; and

8.8.9 Maintenance of records.

### RHB 8.9 Inspection and Maintenance.

Each registrant shall ensure that checks for obvious defects in radiation machines are made at the beginning of each day of equipment use.

8.9.1 At least annually, each registrant shall inspect and repair components associated with radiation safety of the machines. Records of inspection and maintenance shall be maintained for the Department's inspection.

8.9.2 If any inspection conducted by the registrant reveals damage to the components affecting radiation safety, the radiation machine shall not be used and shall be labeled as defective until repaired.

RHB 8.10 Personnel Monitoring.

No registrant shall permit any individual to act as a Radiation Safety Officer or as an operator unless, at all times during radiographic operations, each such person wears a film badge, thermoluminescent dosimeter (TLD), or other dosimeters approved by the Department. All provisions of Part III of these Regulations apply.

RHB 8.11 Minimum Subjects to be Covered in Training Radiation Safety Officers and Radiographers.

8.11.1 Fundamentals of Radiation Safety:

- 8.11.1.1 Characteristics of ionizing radiation;
- 8.11.1.2 Units of radiation dose (rem or Sievert);
- 8.11.1.3 Hazards of exposure to radiation;
- 8.11.1.4 Levels of radiation from sources of radiation;
- 8.11.1.5 Methods of controlling radiation dose;
  - 8.11.1.5.1 Working time;
  - 8.11.1.5.2 Working distances; and
  - 8.11.1.5.3 Shielding.

8.11.2 Radiation Detection Instrumentation to be Used:

- 8.11.2.1 Use of radiation survey instruments;
  - 8.11.2.1.1 Operation;
  - 8.11.2.1.2 Calibration; and
  - 8.11.2.1.3 Limitations.
- 8.11.2.2 Survey techniques; and
- 8.11.2.3 Use of personnel monitoring equipment:
  - 8.11.2.3.1 Film badges or other approved dosimeters; and
  - 8.11.2.3.2 Pocket dosimeters or pocket chambers, if applicable.

8.11.3 Operation and control of x-ray machines.

8.11.4 The requirements of pertinent state regulations.

8.11.5 The registrant's written operating and emergency procedures.

RHB 8.12 Special Requirements for Certain Industrial Radiographic Techniques.

8.12.1 Cabinet Radiography.

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8.12.1.1 Upon installation, a cabinet radiography unit shall not be operated until a physical radiation survey of the unit and areas adjacent to the unit has been performed. A radiation survey of the unit and area adjacent to the unit shall also be performed at least annually, and after any repair modification, or maintenance on the system.

8.12.1.2 Tests for proper operation of high radiation area control devices, alarm systems or interlocks must be conducted, at least annually, recorded, and maintained in accordance with RHB 8.9.

8.12.1.3 Radiation emitted from the cabinet x-ray unit shall not exceed 0.5 milliRoentgen per hour at any point five centimeters from the external surface.

8.12.1.4 A cabinet x-ray system shall have a permanent floor. Any support surface to which a cabinet x-ray system is permanently affixed may be deemed the floor of the system.

8.12.1.5 The insertion of any part of the human body through any port into the primary beam or through any aperture shall not be possible.

8.12.1.6 Interlocks.

8.12.1.6.1 Each door of a cabinet x-ray system shall have a minimum of two safety interlocks. One, but not both of the required interlocks shall be such that door opening results in physical disconnection of the energy supply circuit to the high-voltage generator, and such disconnection shall not be dependent upon any moving part other than the door.

8.12.1.6.2 Each access panel shall have at least one safety interlock.

8.12.1.6.3 Following interruption of x-ray generation by the functioning of any safety interlock, use of a control provided in accordance with RHB 8.12.1.8.2 shall be necessary for resumption of x-ray generation.

8.12.1.6.4 Failure of any single component of the cabinet x-ray system shall not cause failure of more than one required safety interlock.

8.12.1.7 A ground fault, or an accidental electrical grounding of an electrical conductor, shall not result in the generation of x-rays.

8.12.1.8 Controls and indicators for all cabinet x-ray systems. For all systems to which this section is applicable, there shall be provided:

8.12.1.8.1 A key actuated control to insure that x-ray generation is not possible with the key removed.

8.12.1.8.2 A control or controls to initiate and terminate the generation of x-rays other than by functioning of a safety interlock or the main power control.

8.12.1.8.3 Two independent means which indicate when and only when x-rays are being generated, unless the x-ray generation period is less than one-half second in which case the indicators shall be activated for one-half second, and which are discernible from any point at which initiation of x-ray generation is possible. Failure of a single component of the cabinet x-ray system shall not cause failure of both indicators to perform their intended function. One, but not both, of the indicators required by this regulation may be a milliammeter labeled to indicate x-ray tube current. All other indicators shall be legibly labeled "X-RAY ON."

8.12.1.8.4 Additional means other than milliammeters which indicate when and only when x-rays are being generated, unless the x-ray generation period is less than one-half second in which case the indicators shall be activated for one-half second, as needed to insure that at least one indicator is visible from each door, access panel, and port, and is legibly labeled "X-RAY ON."

8.12.1.9 Additional controls and indicators for cabinet x-ray systems designed to admit humans. For cabinet x-ray systems designed to admit humans, there shall also be provided:

8.12.1.9.1 A control within the cabinet for preventing and terminating x-ray generation, which cannot be reset, overridden or bypassed from the outside of the cabinet.

8.12.1.9.2 No means by which x-ray generation can be initiated from within the cabinet.

8.12.1.9.3 Audible and visible warning signals within the cabinet which are actuated for at least 10 seconds immediately prior to the first initiation of x-ray generation after closing any door designed to admit humans. Failure of any single component of the cabinet x-ray system shall not cause the failure of both the audible and visible warning signals.

8.12.1.9.4 A visible warning signal within the cabinet which remains actuated when and only when x-rays are being generated, unless the x-ray generation period is less than one-half second in which case the indicator shall be activated for one-half second.

8.12.1.9.5 Signs indicating the meaning of the warning signals required by RHB 8.12.1.9.3 and 8.12.1.9.4 and containing instructions for the use of the control required by RHB 8.12.1.9.1. These signs shall be legible, accessible to view, and illuminated when the main power control is in the "on" position.

Warning Labels. There shall be permanently affixed or inscribed on the cabinet x-ray system at the location of any controls which can be used to initiate x-ray generation, a clearly legible and visible label bearing the statement: "CAUTION: X-RAYS PRODUCED WHEN ENERGIZED." There shall also be a permanently affixed or inscribed on the cabinet x-ray system adjacent to each port a clearly legible and visible label bearing the statement: "CAUTION: DO NOT INSERT ANY PART OF THE BODY WHEN SYSTEM IS ENERGIZED--X-RAY HAZARD."

8.12.1.11 Additional Requirements for X-ray Baggage Inspection Systems. X-ray systems designed primarily for the inspection of carry-on baggage at airline, railroad, and bus terminals, and at similar facilities, shall be provided with means to ensure operator presence at the control area in a position which permits surveillance of the ports and doors during generation of x-rays.

8.12.1.11.1 During an exposure or preset succession of exposures of one-half second or greater duration, the means provided shall enable the operator to terminate the exposure or preset succession of exposures at any time.

8.12.1.11.2 During an exposure or preset succession of exposures of less than one-half second duration, the means provided may allow completion of the exposure in progress but shall enable the operator to prevent additional exposures.

## 8.12.2 Shielded Room Radiography.

8.12.2.1 Each registrant shall supply appropriate personnel monitoring equipment to, and shall require the use of such equipment by, every individual who operates, makes "set-ups," or performs maintenance on a radiation machine for shielded room radiography.

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8.12.2.2 A physical radiation survey shall be conducted to determine that the X-ray machine is "off" prior to each entry into the shielded room. Such surveys shall be made with a radiation measuring instrument capable of measuring radiation of the energies and at the dose rates to be encountered, which is in good working order, and which has been properly calibrated within the preceding twelve months or following the last instrument servicing, whichever is later.

8.12.2.3 Each installation shall be provided with such primary barriers and secondary barriers as are necessary to assure compliance with RHB 3.4, and RHB 3.9.

8.12.2.4 Shielding. All provisions of RHB 4.4 apply.

### 8.12.3 Field Radiography.

8.12.3.1 Utilization Logs. Each registrant shall maintain current logs, which shall be kept available for inspection by the Department, showing for each X-ray machine the following information:

8.12.3.2 A description (or make and model number) of each X-ray machine;

8.12.3.3 The identity of the radiographer to whom assigned;

8.12.3.4 The plant or site where used and dates used; and

8.12.3.5 The dates each radiation machine is energized or used and number of exposures made.

8.12.3.6 Security. During each radiographic operation, the radiographer or radiographer's assistant shall maintain a direct surveillance of the operation to protect against unauthorized entry into a high radiation area, except a) where the high radiation area is equipped with a control device which turns the X-ray machine off upon unauthorized entry into the high radiation area or an alarm system which visibly or audibly signals the presence of a high radiation area, or b) where the high radiation area is locked to protect against unauthorized or accidental entry.

8.12.3.7 Radiation Surveys and Survey Records. No radiographic operation shall be conducted unless calibrated, operable radiation survey instrumentation is available and used at each site where radiographic exposures are made, as described in RHB 8.4.

8.12.3.7.1 A physical radiation survey shall be conducted to determine that the radiation machine is "off" prior to each entry into the radiographic exposure area.

8.12.3.7.2 Survey results and records of boundary locations shall be maintained and kept available for inspection by the Department.

8.12.3.8 Personnel Monitoring. In addition to the requirements of RHB 8.10, each radiographer or radiographer's assistant shall wear a pocket dosimeter or pocket chamber along with a film badge during all radiographic operations. Pocket chambers or dosimeters shall be:

8.12.3.8.1 Capable of measuring doses from zero to at least 200 milliRoentgen;

8.12.3.8.2 Read and doses recorded daily; and

8.12.3.8.3 Recharged daily or at the start of each shift.



8.12.3.8.4 Reports received from the dosimeter processor and records of the pocket dosimeter and pocket chamber readings shall be maintained for inspection by the Department.

8.12.3.8.5 Pocket dosimeters shall be checked for correct response to radiation at periods not to exceed 1 year. Acceptable dosimeters shall read within plus or minus 30% of the true exposure calibration shall be maintained by the registrant for the Department's inspection.

8.12.4 Gauging Devices Radiography and Other Industrial Applications. The source shall be such that no radiation is emitted except by application of an electric current through an x-ray tube. Provisions shall be made to limit both the current through the tube and the voltage across the tube, so that radiation levels do not exceed the device classification under use conditions or through circuit component failures. In the event of fire or abnormal elevated temperatures, provisions shall be made to insure the high voltage is automatically disabled before loss of any integral shielding. This provision exempts x-ray tube sources from accident classification conditions.

8.12.4.1 A useful beam control system shall be provided in gauges whenever the useful beam is accessible and the radiation levels exceed 100 mrem/h (1 mSv/h) at 5 cm from any accessible surface or 5 mrem/h (.05 mSv/h) at 30 cm. The useful beam controls may include (but not be limited to) a moving shutter, a moving source, or a high voltage power supply.

8.12.4.2 A yellow or amber warning light with the radiation "High Voltage On" shall be located on the control panel and on or adjacent to the source housing and shall light only when power is applied to the x-ray tube high voltage circuit.

8.12.4.3 Radiation Levels. The local components of an industrial x-ray system shall be located and arranged and shall include sufficient shielding or have access control such that no radiation in any area surrounding the local component group could result in a dose to an individual present therein in excess of the dose limits given in RHB 3.4. These levels shall be met at any specified tube rating.

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### PART IX DEFINITIONS

As used in these regulations, the following definitions apply:

9.1 "Absorbed dose" is the energy imparted to matter by ionizing radiation per unit mass of irradiated material at the place of interest. The special units of absorbed dose are the rad or the gray.

9.2 "Accessible surface" means the external surface of the enclosure or housing provided by the manufacturer.

9.3 "Accreditation body" or "body" means an entity that has been approved by FDA to accredit mammography facilities.

9.4 "Act" means Act No. 223, Atomic Energy and Radiation Control Act enacted by the 1967 Session South Carolina Legislature. [Section 13-7-40 et seq., S.C. Code of Laws (1976, as amended)].

9.5 "Action limits" or "action levels" means the minimum and maximum values of a quality assurance measurement that can be interpreted as representing acceptable performance with respect to the parameter being tested. Values less than the minimum or greater than the maximum action limit or level indicate that corrective action shall be taken by the facility. Action limits or levels are also sometimes called control limits or levels.

9.6 "Added filtration" means any filtration which is in addition to the inherent filtration.

9.7 "Adverse event" means an undesirable experience associated with mammography activities that include but are not limited to: poor image quality; failure to send mammography reports within 30 days to the referring physician or in a timely manner to the self-referred patient; and use of personnel that do not meet the requirements.

9.8 "Adult" means an individual 18 or more years of age.

9.9 "Air kerma" means kerma in a given mass of air. The unit used to measure the quantity of air kerma is the Gray (Gy). For x-rays with energies less than 300 kiloelectronvolts (9keV), 1Gy=100rad.

9.10 "ALARA" (acronym for "as low as is reasonably achievable") means making every reasonable effort to maintain exposures to radiation as far below the dose limits in the Rules in this Chapter as is practical consistent with the purpose for which the licensed or registered activity is undertaken, taking into account the state of technology, the economics of improvements in relation to state of technology, the economics of improvements in relation to benefits to the public health and safety, and other societal and socioeconomic considerations, and in relation to utilization of sources of radiation in the public interest.

9.11 "Aluminum equivalent" means the thickness of type 1100 aluminum alloy affording the same attenuation, under specified conditions, as the material in question.

9.12 "Analytical x-ray equipment" means any machine utilizing x-rays for examination of the microscopic structure, or elemental or chemical composition of materials. This includes x-ray equipment used for x-ray diffraction, fluorescence analysis, or spectroscopy.

9.13 "Analytical x-ray system" means a group of local and remote components utilizing x-rays to determine the elemental composition or to examine the microstructure of materials. Local components include those that are struck by x-rays such as radiation source housings, port and shutter assemblies, collimators, sample holders, cameras, goniometers, detectors, and shielding. Remote components include power supplies, transformers, amplifiers, readout devices, and control panels.

9.14 "Annually" means at intervals not to exceed 12 consecutive months.

9.15 "Applicator" means a structure which determines the extent of the treatment field at a given distance from the virtual source.

9.16 "Assembler" means any person engaged in the business of assembling, reassembling, replacing, installing, or reinstalling one or more components into an x-ray system or subsystem. The term includes the owner of an x-ray system, his employee, or agent who assembles components into an x-ray system that is subsequently used to provide professional or commercial services.

9.17 "Attenuation block" means a block or stack, having dimensions 20 centimeters by 20 centimeters by 3.8 centimeters, of type 1100 aluminum alloy or other materials having equivalent attenuation.

9.18 "Authorized representative" means an employee of the Department, or an individual outside the Department when the individual is specifically so designated by the Department.

9.19 "Automatic exposure control" means a device which automatically controls one or more technique factors in order to obtain at a preselected location(s) a required quantity of radiation (See also "Phototimer").

9.20 "Average glandular dose" means, in mammography, the value in millirad for a given breast or phantom thickness which estimates the average absorbed dose to the glandular tissue extrapolated from free air exposures and based on fixed filter thickness and target material.

9.21 "Background radiation" means radiation from cosmic sources, naturally occurring radioactive materials, including radon (except as a decay product of source or special nuclear material) and global fallout as it exists in the environment from the testing of nuclear explosive devices. "Background radiation" does not include sources of radiation regulated by the agency.

9.22 "Barrier" (See "Protective Barrier").

9.23 "Beam axis" means a line from the source through the centers of the x-ray fields.

9.24 "Beam-limiting device" means a device which provides a means to restrict the dimensions of the x-ray field.

9.25 "Beam monitoring system" means a system designed to detect and measure the radiation present in the useful beam.

9.26 "Beam scattering foil" means a foil used in order to scatter a beam of electrons.

9.27 "Breast implant" means a prosthetic device implanted in the breast.

9.28 "Cabinet x-ray system" means an x-ray system with the x-ray tube installed in an enclosure which is intended to contain at least that portion of a material being irradiated, provide radiation attenuation, and exclude personnel from its interior during x-ray production. An x-ray tube used within a shielded part of a building, or x-ray equipment which may temporarily or occasionally incorporate portable shielding is not considered a cabinet x-ray system.

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9.29 "Calendar quarter" means not less than 12 consecutive weeks nor more than 14 consecutive weeks. The first calendar quarter of each year shall begin in January; and subsequent calendar quarters shall be such that no day is included in more than one calendar quarter or omitted from inclusion within a calendar quarter. No registrant shall change the method observed by him of determining calendar quarters for purposes of these regulations, except at the beginning of a calendar year. For the purpose of Part V, "Calendar quarter" means any one of the following time periods during a given year: January 1 through March 31, April 1 through June 30, July 1 through September 30 or October 1 through December 31.

9.30 "Calibration" means:

(a) the response or reading of an instrument relative to a series of known radiation values over the range of the instrument; or

(b) the strength of a source of radiation relative to a standard.

9.31 "Category I" means medical educational activities that have been designated as Category I by the Accreditation Council for Continuing Medical Education (ACCME), the American Osteopathic Association (AOA), a state medical society or an equivalent organization.

9.32 "C-Arm" means an x-ray system in which the image receptor and x-ray tube housing assembly are connected by a common mechanical support system in order to maintain a desired spatial relationship.

9.33 "Central axis of the beam" means a line passing through the virtual source and the center of the plane figure formed by the edge of the first beam-limiting device.

9.34 "Cephalometric" means a device intended for the radiographic visualization and measurement of the dimensions of the human head.

9.35 "Certification" means the process of approval of a facility by the Department to provide mammography services.

9.36 "Certified components" means components of x-ray systems which are subject to the Regulations for the Administration and Enforcement of the Radiation Control for Health and Safety Act of 1968, promulgated under Public Law 90-602.

9.37 "Certified system" means any x-ray system which has one or more certified component(s).

9.38 "Changeable filters" means any filter, exclusive of inherent filtration, which can be removed from the useful beam through any electronic, mechanical, or physical process.

9.39 "Change of status" means transfer of ownership, change of address, or disposal of any X-ray system.

9.40 "Clinical image" means a mammogram.

9.41 "Coefficient of variation" or "C" means the ratio of the standard deviation to the mean value of a population of observations. It is estimated using the following equation:

where:

s = Estimated standard deviation of the population.

$$c = \frac{s}{\bar{X}} = \frac{1}{\bar{X}} * \sqrt{\sum (X_i - \bar{X})^2 / n - 1}$$

$\bar{X}$  = Mean value of observations in sample.

$X_i$  = *i*th observation in sample.

n = Number of observations in sample.

- 9.42 "Collimator" means a device or mechanism by which the x-ray beam is restricted in size.
- 9.43 "Committed dose equivalent" means the dose equivalent to organs or tissues of reference (T) that will be received from an intake of radioactive material by an individual during the 50-year period following the intake.
- 9.44 "Consumer" means an individual who chooses to comment or complain in reference to a mammography examination, including the patient or representative of the patient (e.g., family member or referring physician).
- 9.45 "Continuing education unit or continuing education credit" means one contact hour of training.
- 9.46 "Contact hour" means an hour of training received through direct instruction.
- 9.47 "Controlled area" means an area outside of a restricted area but inside the site boundary, access to which can be limited by the registrant for any reason.
- 9.48 "Coulomb per kilogram" (C/kg) is the unit of exposure. One Roentgen is equal to  $2.58 \times 10^{-4}$  Coulomb per kilogram. Submultiples of this unit are the milliCoulomb per kilogram (mC/kg) and the microCoulomb per kilogram (uC/kg).
- 9.49 "CT" (See "Computed tomography").
- 9.50 "CT conditions of operation" means all selectable parameters governing the operation of a CT x-ray system including, but not limited to, nominal tomographic section thickness, filtration, and the technique factors as defined in RHB 9.252.
- 9.51 "CT gantry" means the tube housing assemblies, beam-limiting devices, detectors, and the supporting structures and frames which hold these components.
- 9.52 "Computed tomography" means the production of a tomogram by the acquisition and computer processing of x-ray transmission data.
- 9.53 "Contact therapy system" means an x-ray system used for therapy with the x-ray tube port placed in contact with or within 5 centimeters of the surface being treated.
- 9.54 "Control panel" means that part of the x-ray control upon which are mounted the switches, knobs, pushbuttons, and other hardware necessary for manually setting the technique factors.
- 9.55 "Cooling curve" means the graphical relationship between heat units stored and cooling time.
- 9.56 "Dead-man switch" means a switch so constructed that a circuit closing contact can be maintained only by continuous pressure on the switch by the operator.
- 9.57 "Declared pregnant woman" means a woman who has voluntarily informed her employer, in writing, of her pregnancy and the estimated date of conception.
- 9.58 "Deep-dose equivalent" ( $H_d$ ), which applies to external whole-body exposure, is the equivalent at a tissue depth of 1 cm ( $1000 \text{ mg/cm}^2$ ).
- 9.59 "Department" means the South Carolina Department of Health and Environmental Control.
- 9.60 "Detector" (See "Radiation detector").

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- 9.61 "Diagnostic mammography" means mammography performed on a patient with:  
Clinical signs, symptoms or physical findings suggestive of breast cancer;  
An abnormal or questionable screening mammogram;  
A history of breast cancer with breast conservation surgery regardless of absence of clinical breast signs, symptoms or physical findings; or  
Augmented breast regardless of absence of clinical breast signs, symptoms or physical findings.
- 9.62 "Diagnostic source assembly" means the tube housing assembly with a beam-limiting device attached.
- 9.63 "Diagnostic x-ray imaging system" means an assemblage of components for the generation, emission and reception of x-rays and the transformation, storage and visual display of the resultant x-ray image.
- 9.64 "Diagnostic x-ray system" means an x-ray system designed for irradiation of any part of the human or animal body for the purpose of diagnosis or visualization.
- 9.65 "Diaphragm" means a device or mechanism by which the x-ray beam is restricted in size.
- 9.66 "Direct instruction" means face-to-face interaction between instructor(s) and student(s), as when the instructor provides a lecture, conducts demonstrations or reviews student performance; or the administration and correction of student examinations by an instructor(s) with subsequent feedback to the student(s).
- 9.67 "Direct scattered radiation" means that scattered radiation which has been deviated in direction only by materials irradiated by the useful beam (See "Scattered Radiation").
- 9.68 "Direct supervision", in Part V, means that:  
During joint interpretation of mammograms, the supervising interpreting physician reviews, discusses, and confirms the diagnosis of the physician being supervised and signs the resulting report before it is entered into the patient's records; or  
During the performance of a mammography examination or survey of the facility's equipment and quality assurance program, the supervisor is present to observe and correct, as needed, the performance of the individual being supervised who is performing the examination or conducting the survey.
- 9.69 "Dose" is a generic term which means absorbed dose, dose equivalent, effective dose equivalent, or total effective dose equivalent as defined in these regulations.
- 9.70 "Dose equivalent" ( $H_T$ ) means the product of the absorbed dose in tissue, quality factor, and all other necessary modifying factors at the location of interest. The units of dose equivalent at the rem and sievert (Sv).
- 9.71 "Dose limits" (See Limits).
- 9.72 "Dose monitoring system" means a system of devices for the detection, measurement, and display of quantities of radiation.
- 9.73 "Dose monitor unit" means a unit response from the dose monitoring system from which the absorbed dose can be calculated.
- 9.74 "Dosimetry processor" means an individual or an organization that processes and evaluates individual monitoring devices in order to determine the radiation dose delivered to the monitoring devices.
- 9.75 "Effective dose equivalent" ( $H_E$ ) is the sum of the products of the dose equivalent to the organ or tissue ( $H_T$ ) and the weighting factors ( $W_T$ ) applicable to each of the body organs or tissues that are irradiate ( $H_E = \sum W_T H_T$ ).

9.76 "Embryo/fetus" means the developing human organism from conception until the time of birth.

9.77 "Entrance or access point" means any location through which an individual could gain access to radiation areas or to a source of radiation. This includes entry or exit portals of sufficient size to permit human entry, irrespective of their intended use.

9.78 "Entrance exposure rate" means the exposure free in air per unit time at the point where the center of the useful beam enters the patient.

9.79 "ESE" means the exposure at skin entrance where the center of the useful beam enters the patient.

9.80 "Equipment" (See "X-ray system").

9.81 "Established operating level" means the value of a particular quality assurance parameter that has been established as an acceptable normal level by the facility's quality assurance program.

9.82 "Exposure" is the amount of ionization per unit mass of air due to x-rays. It is the quotient of  $dQ$  by  $dm$  where " $dQ$ " is the absolute value of the total charge of the ions of one sign produced in air when all the electrons (negatrons and positrons) liberated by photons in a volume element of air having mass " $dm$ " are completely stopped in air. The special units of exposure are the Roentgen (R), or the coulomb per kilogram.

9.83 "Exposure rate" means the exposure per unit of time, such as R/min and mR/h.

9.84 "External dose" means that portion of the dose equivalent received from radiation sources outside the body.

9.85 "Extremities" means hand, elbow, arm below the elbow, foot, knee, and leg below the knee.

9.86 "Eye dose equivalent" applies to the external exposure of the lens of the eye and is taken as the dose equivalent at a tissue depth of 0.3 centimeter ( $300 \text{ mg/cm}^2$ )

9.87 "Facility" means the location at which one or more x-ray machines are installed or located within one building, vehicle, or under one roof and are under the same administrative control.

9.88 "Facility" or "mammography installation" means a hospital, outpatient department, clinic, radiology practice, mobile unit, office of a physician or other facility that conducts mammography activities, including operation of equipment to produce a mammogram, processing of the mammogram, initial interpretation of the mammogram and maintaining viewing conditions for that interpretation.

9.89 "Fail-safe characteristics" means a design feature which causes beam port shutters to close, or otherwise prevents emergence of the primary beam, upon the failure of a safety or warning device.

9.90 "FDA" means the Food and Drug Administration.

9.91 "Field emission equipment" means equipment which uses an x-ray tube in which an electron emission from the cathode is due solely to the action of an electric field.

9.92 "Field-flattening filter" means a filter used to provide dose uniformity over the area of a useful beam of x-rays at a specified depth.

9.93 "Field radiography" means the examination of the macroscopic structure of materials by nondestructive methods of utilizing sources of radiation in a non-fixed or non-permanent location.

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9.94 "Field size" means the dimensions along the major axes of an area in a plane perpendicular to the central axis of the useful beam of incident radiation at the normal treatment distance and defined by the intersection of the major axes and the 50 percent isodose line. Material shall be placed in the beam such that dose maximum is produced at the normal treatment distance when field size is being determined.

9.95 "Filter" means material placed in the useful beam to preferentially absorb selected radiation.

9.96 "First allowable time" means the earliest time a resident physician is eligible to take the diagnostic radiology boards from an FDA-designated certifying body.

9.97 "Fluoroscopic imaging assembly" means a subsystem in which x-ray photons produce a fluoroscopic image. It includes the image receptor(s) such as the image intensifier and spot-film device, electrical interlocks, if any, and structural material providing linkage between the image receptor and diagnostic source assembly.

9.98 "Focal spot (actual)" means the area projected on the anode of the x-ray tube bombarded by the electrons accelerated from the cathode and from which the useful beam originates.

9.99 "Fog test" means an evaluation of increased density and reduced contrast on film which has not been exposed to the radiation field. This is usually done by processing unexposed film and measuring the density.

9.100 "Gantry" means that part of the system supporting and allowing possible movements of the radiation head.

9.101 "Gauge" means a mechanism designed and manufactured for the purpose of determining or controlling thickness, density, level, interface location, or qualitative or quantitative chemical composition. It may include components such as radiation shields and useful beam controls incorporated into the gauge in order to meet the requirements or specifications of this regulation.

9.102 "General purpose radiographic x-ray system" means any radiographic x-ray which, by design, is not limited to radiographic examination of specific anatomical regions.

9.103 "Gonadal shield" means a protective barrier for the testes or ovaries.

9.104 "The "Gray" is the unit of absorbed dose. It is equal to 1 joule per kilogram. One rad is equal to  $1 \times 10^{-2}$  Gray. Submultiples included in this document are the milliGray (Gy) and the microGray (uGy).

9.105 "Half-value layer (HVL)" means the thickness of specified material which attenuates the beam of radiation to an extent such that the exposure rate is reduced to one-half of its original value. In this definition, the contribution of all scattered radiation, other than any which might be present initially in the beam concerned, is deemed to be excluded.

9.106 "Healing arts" means any system, treatment, operation, diagnosis, prescription, or practice for the ascertainment, cure, relief, palliation, adjustment, or correction of any human disease, ailment, deformity, injury, or unhealthy or abnormal physical or mental condition.

9.107 "Healing arts screening" means the testing of human beings using x-ray machines for the detection or evaluation of health indications when such tests are not specifically and individually ordered by a licensed practitioner of the healing arts legally authorized to prescribe such x-ray tests for the purpose of diagnosis or treatment.

9.108 "Health professions" means the professional persons authorized by the laws of the State to use x-rays in the diagnosis or treatment of human or animal disease.



9.109 "Heat unit" means a unit of energy equal to the product of the peak kilovoltage, milliamperes, and seconds, i.e., kVp x mA x second.

9.110 "High radiation area" means any area, accessible to individuals, in which there exists radiation at such levels that the whole body could receive in any one hour, a dose in excess of 0.1 rem (mSv) in 1 hour at 30 centimeters from the radiation source or from any surface that the radiation penetrates.

9.111 "HVL" (See "Half-value layer").

9.112 "Image intensifier" means a device, installed in its housing, which instantaneously converts an x-ray pattern into a corresponding light image of higher energy density.

9.113 "Image receptor" means any device, such as radiographic film, which transforms incident photons either into a visible image or into another form which can be made into a visible image by further transformations.

9.114 "Image receptor support" means, for mammographic systems, that part of the system designed to support the image receptor during mammography.

9.115 "Individual" means any human being.

9.116 "Individual monitoring" means:

- (a) the assessment of dose equivalent by the use of devices designed to be worn by an individual; or
- (b) the assessment of dose equivalent by the use of survey data.

9.117 "Individual monitoring devices" or "individual monitoring equipment" means devices designed to be worn by a single individual for the assessment of dose equivalent such as film badges, thermoluminescent dosimeters (TLDs), and pocket ionization chambers.

9.118 "Industrial x-ray equipment" means any machine utilizing x-rays for examination of the macroscopic structure of materials. This includes x-ray equipment used for cabinet radiography, shielded room radiography, field radiography, and gauges.

9.119 "Inherent filtration" means the filtration of the useful beam provided by the permanently installed components of the tube housing assembly.

9.120 "Inoperative" means any x-ray machine or device that is temporarily or permanently rendered incapable of producing x-rays.

9.121 "Inspection" means an official examination or observation including, but not limited to, tests, surveys, and monitoring to determine compliance with rules, regulations, orders, requirements, and conditions of the Department.

9.122 "Interim regulations" means the regulations entitled "Requirements for Accrediting Bodies of Mammography facilities" (58 FR 67558-67565) and "Quality Standards and Certification Requirements for Mammography Facilities" (58 FR 67565-67572), published by FDA on December 21, 1993, and amended on September 30, 1994 (59 FR 49808-49813). These regulations established the standards that had to be met by mammography facilities in order to lawfully operate between October 1, 1994 and April 28, 1999.

9.123 "Interlock" means a device for precluding access to a high radiation area by automatically reducing the exposure rate upon entry by personnel.

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9.124 "Interpreting physician" means a licensed physician who interprets mammograms and who meets the requirements of RHB 5.7.

9.125 "Irradiation" means the exposure of matter to ionizing radiation.

9.126 "Isocenter" means the intersection of the collimator axis of rotation and the gantry axis of rotation.

9.127 "Kilovolts peak" (See "Peak tube potential").

9.128 "kV" means kilovolts.

9.129 "kVp" (See "Peak tube potential").

9.130 "Lead interpreting physician" means the interpreting physician assigned the general responsibility for ensuring that a facility's quality assurance program meets all of the requirements of RHB 5.9 and 5.10 of this Part. The administrative title and other supervisory responsibilities of the individual, if any, are left to the discretion of the facility.

9.131 "Leakage radiation (non-diagnostic)" means all radiation coming from within the tube housing complex except the useful beam(s).

9.132 "Leakage radiation (diagnostic)" means radiation emanating from the diagnostic source assembly except for:

(1) the useful beam; and

(2) radiation produced when the exposure switch or timer is not activated.

9.133 "Leakage technique factors" means the technique factors associated with the diagnostic or therapeutic source assembly which are used in measuring leakage radiation. They are defined as follows:

(1) For diagnostic source assemblies intended for capacitor energy storage equipment, the maximum-rated peak tube potential and the maximum-rated number of exposures in an hour for operation at the maximum-rated peak tube potential with the quantity of charge per exposure being 10 millicoulombs, i.e., 10 milliampere seconds, or the minimum obtainable from the unit, whichever is larger.

(2) For diagnostic source assemblies intended for field emission equipment rated for pulsed operation, the maximum-rated peak tube potential and the maximum-rated number of x-ray pulses in an hour for operation at the maximum-rated peak tube potential.

(3) For all other diagnostic or therapeutic source assemblies, the maximum-rated peak tube potential and the maximum-rated continuous tube current for the maximum-rated peak tube potential.

9.134 "Licensed practitioner" means an individual with professional specialization who has met the criteria as outlined by the South Carolina Department of Labor, Licensing, and Regulation.

9.135 "Light field" means that area of the intersection of the light beam from the beam-limiting device and one of the set of planes parallel to and including the plane of the image receptor, whose perimeter is the locus of points at which the illumination is one-fourth of the maximum in the intersection.

9.136 "Limits" or "Dose Limits" means the permissible upper bounds of radiation doses.

9.137 "Linear attenuation coefficient" or " $\mu$ " means the quotient of  $dN/N$  divided by  $dl$  when  $dN/N$  is the fraction of uncharged ionizing radiation that experience interactions in traversing a distance  $dl$  in a specified material.

9.138 "Line voltage regulation" means the difference between the no-load and the load line potentials expressed as a percent of the load line potential. It is calculated using the following equation.

Percent line-voltage regulation =  $100 (V_n - V_l) / V_l$  where  
 $V_n$  = No load line potential and  
 $V_l$  = Load line potential.

9.139 "mA" means milliAmpere.

9.140 "Mammogram" means a radiographic image produced through mammography.

9.141 "Mammographic modality" means a technology for radiography of the breast. Examples are screen-film mammography and digital mammography.

9.142 "Mammography" means radiography of the breast.

9.143 "Mammography equipment evaluation" means an onsite assessment of mammography unit or image processor performance by a medical physicist for the purpose of making a preliminary determination as to whether the equipment meets all of the applicable standards in this Part.

9.144 "Mammography medical outcomes audit" means a systematic collection of mammography results and the comparison of those results with outcomes data.

9.145 "Mammography unit" or "units" means an assemblage of components for the production of x-rays for use during mammography, including, at a minimum, an x-ray generator, an x-ray control, a tube housing assembly, a beam limiting device and the supporting structures for these components.

9.146 "mAs" means milliAmpere second.

9.147 "Maximum line current" means the root-mean-square current in the supply line of an x-ray machine operating at its maximum rating.

9.148 "Mean optical density" means the average of the optical densities (OD) measured using phantom thicknesses of 2, 4, and 6 centimeters with values of kilovolt peak (kVp) clinically appropriate for those thicknesses.

9.149 "Medical device" means an instrument, tool, machine, test kit, or implant that is used to prevent, diagnose, or treat disease or other medical conditions.

9.150 "Medical physicist", for the purpose of Part V, means a person trained in evaluating the performance of mammography equipment and facility quality assurance programs and who meets the qualifications set forth in RHB 5.7.3.

9.151 "Member of the public" means an individual in a controlled or unrestricted area; however, an individual is not a member of the public during any period in which the individual receives an occupational dose.

9.152 "Minor" means an individual less than 18 years of age.

9.153 "Misadministration" means the administration of:

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9.153.1 Radiation to the wrong patient, wrong treatment site, or wrong mode of treatment;

9.153.2 Performance of a diagnostic or therapeutic procedure other than that ordered by the prescribing physician.

9.153.3 A therapeutic radiation dose from a source such that errors in the source calibration, time of exposure, or treatment geometry result in a calculated total treatment dose differing from the total prescribed treatment dose by more than 20 percent.

9.153.4 When the treatment consists of three or fewer fractions, a therapeutic radiation dose from a source such that errors in the source calibration, time of exposure, or treatment geometry result in a calculated total treatment dose differing from the total prescribed treatment dose by more than 10 percent.

9.153.5 When the calculated weekly treatment dose exceeds the weekly prescribed dose by 30 percent or more of the weekly prescribed dose.

9.154 "Mobile x-ray equipment" (See "X-ray equipment").

9.155 "Monitoring", "radiation monitoring" or "radiation protection monitoring" means the measurement of radiation levels, concentrations, surface area concentrations or quantities of radioactive material and the use of the results of these measurements to evaluate potential exposures and doses.

9.156 "MQSA" means the federal Mammography Quality Standards Act of 1992.

9.157 "Multi-reading" means two or more physicians, at least one of whom is an interpreting physician, interpreting the same mammogram.

9.158 "Nonstochastic effect" means health effects, the severity of which varies with the dose and for which a threshold is believed to exist. Radiation-induced cataract formation is an example of nonstochastic effect (also called a deterministic effect).

9.159 "Moving beam therapy" means radiation therapy with relative displacement of the useful beam or the patient during irradiation. It includes arc therapy, skip therapy, conformational therapy, and rotational therapy.

9.160 "Normal treatment distance" means:

(1) For electron irradiation, the distance from the scattering foil or exit window of the electron beam to the surface along the central axis of the useful beam, or from the virtual source to the surface along the central axis of the useful beam as specified by the manufacturer.

(2) For x-ray irradiation, the virtual source or target to isocenter distance along the central axis of the useful beam. For non-isocentric equipment, this distance shall be specified by the manufacturer.

9.161 "Occupational dose" means the dose received by an individual in a restricted area or in the course of employment in which the individual's assigned duties involve exposure to radiation, whether in the possession of the registrant or other person. Occupational dose does not include dose received from background radiation, as a patient from medical practices, from voluntary participation in medical research programs, or as a member of the general public.

9.162 "Open beam configuration" means an analytical x-ray system in which an individual could accidentally place some part of his body in the primary beam path during normal operation.

9.163 "Operating procedures" means detailed written instructions including, but not limited to, use of the x-ray equipment, use of shielding and barriers, quality assurance methods, occasions and methods for conducting area surveys, use of personnel monitoring devices, and alignment, calibration, or preventative maintenance of x-ray equipment. Routine and emergency radiation safety considerations are part of these procedures. Emergency procedures shall include methods of notifying proper persons in the event of an emergency, to include the listing of names, addresses and phone numbers.

9.164 "Operative" means any x-ray machine or device that is capable of producing x-rays.

9.165 "Patient" means an individual or animal subjected to healing arts examination, diagnosis, or treatment, including a mammography evaluation.

9.166 "PBL" (See "Positive beam limitation").

9.167 "Peak tube potential" means the maximum value of the potential difference across the x-ray tube during an exposure.

9.168 "Person" means any individual, corporation, partnership, firm, association, trust, estate, public or private institution, group, agency, political subdivision of this State, any other state or political subdivision or agency thereof, and any legal successor, representative, agent or agency of the foregoing, other than entities over which a federal government agency has exclusive jurisdiction.

9.169 "Personnel monitoring equipment" means devices designed to be carried or worn by an individual for the purpose of measuring the dose which an individual receives (e.g., film badges, pocket chambers, pocket dosimeters).

9.170 "Phantom" in Part VI, means a volume of material behaving in a manner similar to tissue with respect to the attenuation and scattering of radiation. This requires that both the atomic number (Z) and the density of the material be similar to that of the tissue.

9.171 "Phantom" in Part V, means a test object used to simulate radiographic characteristics of compressed breast tissue and containing components that radiographically model aspects of breast disease and cancer. This definition does not apply to phantoms used for Quality Assurance testing of stereotactic biopsy units. It is equivalent to a nominal 4.2 centimeter compressed breast of average density (i.e., 50 percent adipose and 50 percent glandular tissue) and shall contain the following objects:

(1) Spherical masses, composed of phenolic plastic with thicknesses of: 2.00, 1.00, 0.75, 0.50 and 0.25 millimeter;

(2) Specks, composed of aluminum oxide, with diameters of: 0.54, 0.40, 0.32, 0.24 and 0.16 millimeter;

(3) Fibers composed of nylon, with thicknesses of: 1.56, 1.12, 0.89, 0.75, 0.54, and 0.40 millimeter.

9.172 "Phantom image" means a radiographic image of a phantom.

9.173 "Phototimer" means a method for controlling radiation exposure to image receptors by measuring the amount of radiation which reaches a radiation monitoring device(s). The radiation monitoring device(s) is part of an electronic circuit which controls the duration of time the tube is activated (See "Automatic exposure control").

9.174 "Physical science" means physics, chemistry, radiation science (including medical physics and health physics) and engineering.

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9.175 "PID" (See "Position indicating device").

9.176 "Planned special exposure" means an infrequent exposure to radiation, separate from and in addition to the annual occupational dose limits.

9.177 "Portable x-ray equipment" (See "X-ray equipment").

9.178 "Position indicating device" means a device on dental x-ray equipment used to indicate the beam position and to establish a definite source-surface (skin) distance. It may or may not incorporate or serve as a beam-limiting device.

9.179 "Positive beam limitation" means the automatic or semiautomatic adjustment of an x-ray beam to the selected image receptor size, whereby exposures cannot be made without such adjustments.

9.180 "Positive mammogram" means a mammogram that has an overall assessment of findings that are either "suspicious" or "highly suggestive of malignancy."

9.181 "Primary beam" means ionizing radiation which passes through an aperture of the source housing by a direct path from the x-ray tube located in the radiation source housing.

9.182 "Primary dose monitoring system" means a system which will monitor the useful beam during irradiation and which will terminate irradiation when a preselected number of dose monitor units have been acquired.

9.183 "Primary protective barrier" (See "Protective barrier").

9.184 "Protective apron" means an apron made of radiation absorbing material used to reduce radiation exposure.

9.185 "Protective barrier" means a barrier of radiation absorbing material(s) used to reduce radiation exposure. The types of protective barriers are as follows:

(1) "Primary protective barrier" means the material, excluding filters, placed in the useful beam, to protect anyone other than the patient from radiation exposure.

(2) "Secondary protective barrier" means a barrier sufficient to attenuate the stray radiation to the required degree.

9.186 "Protective glove" means a glove made of radiation absorbing materials used to reduce radiation exposure.

9.187 "Provisional certificate" means the provisional certificate described in RHB 5.3.3.

9.188 "Public dose" means the dose received by a member of the public from exposure to radiation by a registrant, or to another source of radiation either within a registrant's controlled area or in unrestricted areas. It does not include occupational dose or doses received from background radiation, as a patient from medical practices, or from voluntary participation in medical research programs.

9.189 "Qualified expert" means an individual who has demonstrated to the satisfaction of the Department that such individual possesses the knowledge, training and experience to measure ionizing radiation, to evaluate safety techniques, and to advise regarding radiation protection needs.

9.190 "Qualified instructor" means an individual whose training and experience adequately prepares him or her to carry out specified training assignments. Interpreting physicians, radiologic technologists or medical physicists who meet the requirements of RHB 5.7 of this Part would be considered qualified instructors in their respective areas of mammography. Other examples of individuals who may be qualified instructors for the purpose of providing training to meet the requirements of this Part include, but are not limited to, instructors in a post-high school training institution and manufacturer's representatives.

9.191 "Quality assurance" is a program designed to produce high quality radiographs at minimal cost and minimal patient exposure.

9.192 "Quality control" is the routine measurement of image quality and the performance of the diagnostic x-ray imaging system, from x-ray beam output to the viewing of radiographs, and the continual adjustment of that performance to an optimal and consistent level.

9.193 "Quality control technologist" means an individual meeting the requirements of RHB 5.7.2 who is responsible for those quality assurance responsibilities not assigned to the lead interpreting physician or to the medical physicist.

9.194 "Quality factor" (Q) means the modifying factor that is used to derive dose equivalent from absorbed dose. Quality factors are provided in the definition of rem.

9.195 The "rad" is a measure of the absorbed dose of any radiation to body tissue in terms of the energy absorbed per unit mass of the tissue. One rad is the absorbed dose corresponding to 100 ergs per gram of tissue. (One millirad {mrad} = 0.001 rad.)

9.196 "Radiation" means ionizing radiation, including gamma rays, x-rays, alpha particles, beta particles, high speed electrons, neutrons, high speed protons, and other atomic particles, but not sound or radio waves, or visible, infrared, or ultraviolet light.

9.197 "Radiation area" means any area accessible to individuals in which there exists radiation at such levels that the whole body could receive in any one hour, a dose in excess of 5 millirem (.05 mSv) at 30 centimeters from the radiation source or from any surface that the radiation penetrates.

9.198 "Radiation detector" means a device which in the presence of radiation provides a signal or other indication suitable for use in measuring one or more quantities of incident radiation.

9.199 "Radiation dose" means dose.

9.200 "Radiation installation" is any location or facility where radiation machines are used.

9.201 "Radiation safety officer" means one who has the knowledge and responsibility to apply appropriate radiation protection regulations, and is approved in writing by the registrant.

9.202 "Radiation therapy simulation system" means a radiographic or fluoroscopic x-ray system intended for localizing the volume to be exposed during radiation therapy and confirming the position and size of the therapeutic irradiation field.

9.203 "Radiograph" means an image receptor on which the image is created directly or indirectly by an x-ray pattern and results in a permanent record.

9.204 "Radiographer" means any individual who performs or who, in attendance at the site where sources of radiation are being used, personally supervises field radiography operations, and who is responsible to the registrant for assuring compliance with the requirements of these regulations.

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9.205 "Radiographer's assistant" means any individual who, under the personal supervision of a radiographer, uses sources of radiation, related handling tools, or survey instruments in field radiography.

9.206 "Radiographic imaging system" means any system whereby a permanent or temporary image is recorded on an image receptor by the action of ionizing radiation.

9.207 "Radiological physicist" means an individual who is certified by the American Board of Radiology in therapeutic radiological physics, radiological physics, or x- and gamma ray physics; or certified by the American Board of Medical Physicists in radiation oncology physics, or have the equivalent training experience as approved, or have the following minimum training and experience:

9.207.1 A Master's or a Doctoral degree in Physics, Biophysics, Radiological Physics, or Health Physics or Medical Physics; one year full-time training in therapeutic radiological physics;

9.207.2 One year full-time experience in a therapeutic facility where the individual's duties involve calibration and spot checks of a medical accelerator, and includes personal calibration and spot check of at least one machine.

9.208 "Radiologic technologist", in Part V, means an individual specifically trained in the use of radiographic equipment and the positioning of patients for radiographic examinations and when performing mammography without direct supervision, also meets the requirements set forth in RHB 5.7.2.

9.209 "Rating" means the operating limits as specified by the component manufacturer.

9.210 "Recording" means producing a permanent form of an image resulting from x-ray photons.

9.211 "Registrant" means any person who is registered with the Department or is legally obligated to register with the Department pursuant to the Act and these regulations.

9.212 "Registration" means registering with the Department in accordance with these regulations and the Act.

9.213 "Rem" is the special unit of any of the quantities expressed as dose equivalent. The dose equivalent in rems is equal to the absorbed dose in rads multiplied by the quality factor (1 rem = 0.01 sievert). The quality factors for converting absorbed dose to dose equivalent are as follows:

#### QUALITY FACTORS AND ABSORBED DOSE EQUIVALENCIES

TYPE OF RADIATION	Quality Factor (Q)	Absorbed Dose Equal to a Unit Dose Equivalent*
X-, gamma, or beta radiation	1	1 a Unit Dose Equivalent*
Alpha particles, multiple-charged particles, fission fragments and heavy particles of unknown charge	20	0.05
Neutrons of unknown energy	10	0.1
High-energy protons	10	0.1

\*Absorbed dose in rad equal to 1 rem or the absorbed dose in gray equal to 1 sievert.



9.214 "Response time" means the time required for an instrument system to reach 90 percent of its final reading when the radiation sensitive volume of the instrument system is exposed to a step change in radiation flux from zero sufficient to provide a steady step midscale reading.

9.215 "Restricted area" (controlled area) means any area, access to which is controlled by the registrant for purposes of protection of individuals from exposure to radiation. A "restricted area" shall not include any areas used for residential quarters, although a separate room or rooms in a residential building may be set apart as a restricted area.

9.216 "Roentgen" (R) is the special unit of exposure. One Roentgen equals  $2.58 \times 10^{-4}$  Coulombs/kilogram of air. (See exposure.)

9.217 "Safety device" means a device which prevents the entry of any portion of an individual's body into the primary x-ray beam path or which causes the beam to be shut off upon entry into its path.

9.218 "Scan" means the complete process of collecting x-ray transmission data for the production of a tomogram. Data can be collected simultaneously during a single scan for the production of one or more tomograms.

9.219 "Scan increment" means the amount of relative displacement of the patient with respect to the CT x-ray system or between successive scans measured along the direction of such displacement.

9.220 "Scan sequence" means a preselected set of two or more scans performed consecutively under preselected CT conditions of operation.

9.221 "Scan time" means the period of time between the beginning and end of x-ray transmission data accumulation for a single scan.

9.222 "Scattered radiation" means radiation that, during passage through matter, has been deviated in direction (See "Direct scattered radiation").

9.223 "Screening mammography" means mammography performed on an asymptomatic patient to detect the presence of breast cancer at an early stage.

9.224 "Secondary dose monitoring system" means a system which will terminate irradiation in the event of failure of the primary system.

9.225 "Secondary protective barrier" (See "Protective barrier").

9.226 "Serious adverse event" means an adverse event that may significantly compromise clinical outcomes, or an adverse event for which a facility fails to take appropriate corrective action in a timely manner.

9.227 "Serious complaint" means a report of a serious adverse event.

9.228 "Shadow tray" means a device attached to the radiation head to support auxiliary beam blocking material.

9.229 "Shallow-dose equivalent" ( $H_s$ ), which applies to the external exposure of the skin or an extremity, is taken as the dose equivalent at a tissue depth of 0.007 centimeter ( $7 \text{ mg/cm}^2$ ) averaged over an area of 1 square centimeter.

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9.230 "Shielded room radiography" means industrial radiography using radiation machines, which is conducted in an enclosed room, the interior of which is not occupied during radiographic operations, which is so shielded that every location on the exterior meets conditions for an unrestricted area and the only access to which is through openings which are interlocked so that the radiation machine will not operate unless all openings are securely closed.

9.231 "Shutter" means a device attached to the tube housing assembly which can totally intercept the entire cross sectional area of the useful beam and which has a lead equivalency not less than that of the tube housing assembly.

9.232 "SID" (see Source to Image Receptor Distance).

9.233 "Sievert (Sv)" is the unit of dose equivalent. The dose equivalent in Sieverts is equal to the absorbed dose in grays multiplied by the quality factor. (1 Sv = 100 rems). Submultiples included in this document are the milliSievert (mSv) and the microSievert (uSv).

9.234 "Site boundary" means that line beyond which the land or property is not owned, leased, or otherwise controlled by the registrant.

9.235 "Source" means the focal spot of the x-ray tube.

9.236 "Source to Image Receptor Distance (SID)" means the distance from the source to the center of the input surface of the image receptor.

9.237 "Source of radiation" means any device or equipment emitting or capable of producing x-ray radiation.

9.238 "Special procedures" means the application of special x-ray equipment and specialized techniques to obtain required diagnostic information. This usually provides enhanced detail of a given anatomical structure but with reduced visualization of others. Special procedures include, but are not limited to, angiography, cardiac catheterization, myelogram, and surgery.

9.239 "Special purpose x-ray system" means any radiographic x-ray system which is limited, by design, to radiographic examinations of specified anatomical regions. Special purpose x-ray systems include, but are not limited to, mammography units, dedicated chest units, cystography units, and head and skull units.

9.240 "Spot check" means a procedure which is performed to assure that a previous calibration continues to be valid.

9.241 "Spot film" means a radiograph which is made during a fluoroscopic examination to permanently record conditions which exist during that fluoroscopic procedure.

9.242 "Spot film device" means a device intended to transport or position a radiographic image receptor between the x-ray source and fluoroscopic image receptor. It includes a device intended to hold a cassette over the input end of an image intensifier for the purpose of making a radiograph.

9.243 "SSD" means the distance between the source and the skin entrance plane of the patient.

9.244 "Standard breast" means a 4.2 centimeter (cm) thick compressed breast consisting of 50 percent glandular and 50 percent adipose tissue.

9.245 "Stationary x-ray equipment" (See "X-ray equipment").

9.246 "Stochastic effects" means health effects that occur randomly and for which the probability of the effect occurring, rather than its severity, is assumed to be a linear function of dose without threshold. Hereditary effects and cancer incidence are examples of stochastic effects (also called a probabilistic effect).

9.247 "Stray radiation" means the sum of leakage and scattered radiation.

9.248 "Supervision" means the delegating of the task of applying radiation pursuant to this part by persons, not licensed in the healing arts or veterinary medicine, who provide services under the practitioner's control. The licensed practitioner assumes full responsibility for these tasks and must assure that the tasks will be administered correctly.

9.249 "Survey" means an evaluation of the use, of sources of radiation under a specific set of conditions to determine actual or potential radiation hazards. When appropriate, such evaluation includes, but is not limited to tests, physical examination, and measurements of levels of radiation.

9.250 "Survey" in Part V, means an onsite physics consultation and evaluation of a facility's quality assurance program performed by a medical physicist.

9.251 "Target" means that part of a radiation head which by design intercepts a beam of accelerated particles with subsequent emission of other radiation.

9.252 "Technique factors" means the following conditions of operations:

- 1) For capacitor energy storage equipment, peak tube potential in kV and quantity of charge in mAs;
- 2) For field emission equipment rated for pulsed operation, peak tube potential in kV and number of x-ray pulses;
- 3) For CT x-ray systems designed for pulsed operation, peak tube potential in kV, scan time in seconds, and either tube current in mA, x-ray pulse width in seconds, and the number of x-ray pulses per scan, or the product of tube current, x-ray pulse width, and the number of x-ray pulses in mAs;
- 4) For CT x-ray systems not designed for pulsed operation, peak tube potential in kV, scan time in seconds, and either tube current in mA and scan time in seconds, or the product of tube current and exposure time in mAs and the scan time when the scan time and exposure time are equivalent; and
- 5) For all other equipment, peak tube potential in kV, and either tube current in mA and exposure time in seconds, or the product of tube current and exposure time in mAs.

9.253 "Termination of irradiation" means the stopping of irradiation in a fashion which will not permit continuance of irradiation without the resetting of operating conditions at the control panel.

9.254 "Test" means a method for determining the characteristics or condition of sources of radiation or components thereof.

9.255 "Therapeutic-type-protective tube housing" (1) For x-ray therapy equipment not capable of operating at 500 kVp or above, the following definition applies: An x-ray tube housing so constructed that the leakage radiation at a distance of one meter from the source does not exceed one Roentgen in an hour when the tube is operated at its maximum rated continuous current for the maximum rated tube potential. (2) For x-ray therapy equipment capable of operation at 500 kVp or above, the following definition applies: An x-ray tube housing so constructed that leakage radiation at a distance of one meter from the source does not exceed an exposure of one Roentgen in an hour or 0.1 percent of the useful beam dose rate at one meter at its maximum rated continuous current for the maximum rated accelerating potential.

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9.256 "Time cycle" means the film development time.

9.257 "Tomogram" means the depiction of the x-ray attenuation properties of a section through the body.

9.258 "Total Effective Dose Equivalent" (TEDE) means the sum of the deep-dose equivalent (for external exposures) and the committed effective dose equivalent (for internal exposures).

9.259 "Traceable to a national standard" means an instrument is calibrated at either the National Institute of Standards and Technology (NIST) or at a calibration laboratory that participates in a proficiency program with NIST at least once every 2 years and the results of the proficiency test conducted within 24 months of calibration show agreement within plus or minus 3 percent of the national standard in the mammography energy range.

9.260 "Tube" means an x-ray tube, unless otherwise specified.

9.261 "Tube housing-apparatus complex" means those parts of an analytical x-ray device in which x-rays are produced and utilized for a useful purpose. This includes the x-ray tube housing, shutter or port assemblies, collimators, cameras, goniometers, and electronic radiation detectors.

9.262 "Tube housing assembly" means the tube housing with tube installed. It includes high voltage or filament transformers and other appropriate elements when such are contained within the tube housing.

9.263 "Unrestricted area" (uncontrolled area) means any area to which access is not controlled by the registrant for purposes of protection of individuals from exposure to radiation, and any area used for residential quarters.

9.264 "Vendor" means a person who is engaged in the business of selling, leasing, installing, or offering to sell, lease, or install x-ray machines or machine components or is engaged in the business of furnishing or offering to furnish x-ray machine services, which includes, but is not limited to, reinstalling, reassembling, leasing, servicing, maintenance, calibration, and repair of x-ray equipment, facility and shielding design, radiation surveys, instrument calibration, personnel dosimetry, processor cleaning and maintenance, and health physics consultations.

9.265 "Very high radiation area" means an area, accessible to individuals, in which radiation levels could result in an individual receiving an absorbed dose in excess of 500 rads (5 grays) in 1 hour at 1 meter from a radiation source or from any surface that the radiation penetrates. At very high doses received at high dose rates, units of absorbed dose (e.g., rads and grays) are appropriate, rather than units of dose equivalent (e.g., rems and sieverts).

9.266 "Virtual source" means a point from which radiation appears to originate.

9.267 "Whole body" means, for purposes of external exposure, head, trunk (including male gonads), arms above the elbow, or legs above the knee.

9.268 "Worker" means an individual engaged in work under a license or registration issued by the agency and controlled by a licensee or registrant, but does not include the licensee or registrant.

9.269 "X-ray equipment" means an x-ray system, subsystem, or component thereof.

9.269.1 Mobile means X-ray equipment mounted on a permanent base with wheels or casters for moving while completely assembled.

9.269.2 Portable means X-ray equipment designed to be hand carried.

9.269.3 Stationary means X-ray equipment designed which is installed in a fixed location.

9.269.4 Transportable means X-ray equipment installed in a vehicle or trailer.

9.270 "X-ray system" means an assemblage of components for the controlled production of x-rays. It includes minimally an x-ray high voltage generator, an x-ray control, a tube housing assembly, a beam limiting device, and the necessary supporting structures. Additional components which function with the system are considered integral parts of the system.

9.271 "X-ray subsystem" means any combination of two or more components of an x-ray system.

9.272 "X-ray tube" means any electron tube which is designed to be used primarily for the production of x-rays.

9.273 "Year" means the period of time beginning in January used to determine compliance with the provisions of this part. The registrant may change the starting date of the year used to determine compliance by the registrant provided that the change is made at the beginning of the year and that no day is omitted or duplicated in consecutive years.

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### **PART X**

#### **NOTICES, INSTRUCTIONS, AND REPORTS TO WORKERS: INSPECTIONS**

##### **RHB 10.1 Purpose and Scope.**

This Part establishes requirements for notices, instructions, and reports by registrants to individuals employed by them, and options available to such individuals in connection with Department inspections of registrants to ascertain compliance with the provisions of the Act and regulations issued thereunder regarding radiological working conditions. The regulations in this Part apply to all persons who receive, possess, use, own, or transfer radiation producing equipment registered by the Department pursuant to the regulation in Part II.

##### **RHB 10.2 Posting of Notices to Workers.**

10.2.1 Each registrant shall post current copies of the following documents: 1) the regulations in this Part and in Part III; 2) "Notice to Employees" Form SC-RHA-20; 3) any notice of violation involving radiological working conditions; or order issued pursuant to Part I and any response from the registrant.

10.2.2 If posting of a document is not practicable, the registrant may post a notice which describes the document and states where it may be examined.

10.2.3 Documents, notices of forms posted pursuant to this section shall appear in a sufficient number of places to permit individuals engaged in work associated with the X-ray equipment to observe them on the way to or from any equipment location to which the document applies, shall be conspicuous, and shall be replaced if defaced or altered.

10.2.4 Department documents posted pursuant to RHB 10.2.3, of this section shall be posted within five (5) working days after receipt of the documents from the Department; the registrant's response, if any, shall be posted within five (5) working days after dispatch from the registrant. Such document shall remain posted for a minimum of five (5) working days or until action correcting the violation has been completed, whichever is later.

##### **RHB 10.3 Instructions to Workers.**

All individuals working in or frequenting any portion of a restricted area shall be kept informed of the use of x-ray equipment or of radiation in portions of the unrestricted area; shall be instructed in the health protection problems associated with exposure to such x-ray equipment or radiation, in precautions or procedures to minimize exposure, and in the purposes and functions of protective devices employed; shall be instructed in, and instructed to observe, to the extent within the worker's control, the applicable provisions of Department regulations for the protection of personnel from radiation occurring in such areas; shall be instructed of their responsibility to report promptly to the registrant any conditions which may lead to or cause a violation of Department regulations or unnecessary exposure to radiation; shall be instructed in the appropriate response to warnings made in the event of an unusual occurrence or malfunction that may involve exposure to radiation; and shall be advised as to the radiation exposure requests which workers may request pursuant to RHB 10.4. The extent of these instructions shall be commensurate with potential radiological health protection problems in the restricted area.

##### **RHB 10.4 Notification and Reports to Individuals.**

10.4.1 Radiation exposure data for an individual and the results of any measurements, analyses, and calculations of radiation exposure to the body of an individual shall be reported to the individual as specified in this section. The information reported shall include data and results obtained pursuant to Department regulations, orders, or inspections. Each notification and report shall: be in writing; include appropriate

identifying data such as the name of the registrant, the name of the individual, the individual's social security number; include the individual's exposure information; and contain the following statement: "This report is furnished to you under the provisions of the South Carolina Department of Health and Environmental Control's Radiation Control Regulations. You should preserve this report for future reference."

10.4.2 At the request of any worker, each registrant shall advise such worker annually of the worker's exposure to radiation as shown in records maintained by the registrant pursuant to RHB 3.22.

10.4.3 At the request of the worker formerly engaged in work controlled by the registrant, each registrant shall furnish to the worker a report of the workers' exposure to radiation. Such report shall be furnished within 30 days from the time the request is made, or within 30 days after the exposure of the individual has been determined by the registrant, whichever is later; shall cover, within the period of time specified in the request, each calendar quarter in which the workers' activities involved exposure to radiation from x-ray producing equipment registered by the Department; and shall include the dates and locations of work under the registrant in which the worker participated during this period.

10.4.4 When a registrant is required pursuant to RHB 3.25 or 3.26 to report to the Department any exposure of an individual to radiation, the registrant shall also provide the individual a report on his exposure data included therein. Such reports shall be transmitted at a time not later than the transmittal to the Department.

#### RHB 10.5 Presence of Registrants and Workers During Inspections.

10.5.1 Each registrant shall afford to the Department, at all reasonable times, opportunity to inspect machines, activities, facilities, premises, and records pursuant to these regulations.

10.5.2 During an inspection, Department inspectors may consult privately with workers as specified in RHB 10.6. The registrant may accompany Department inspectors during other phases of an inspection.

10.5.3 If, at any time of inspection, an individual has been authorized by the workers to represent them during Department inspections, the registrant shall notify the inspectors of such authorization and shall give the workers' representative an opportunity to accompany the inspectors during the inspection of the physical working conditions.

10.5.4 Each workers' representative shall be routinely engaged in work under control of the registrant and shall have received instructions as specified in RHB 10.3. With approval of the registrant, the workers' representative may be an individual who is not routinely engaged in work under control of the registrant, for example, a consultant to the registrant or to the workers' representative shall be afforded the opportunity to accompany Department inspectors during the inspection of physical working conditions.

10.5.5 Different representatives of registrants and workers may accompany the inspectors during different phases of an inspection if there is no resulting interference with the conduct of the inspection.

10.5.6 Notwithstanding the other provisions of this section, Department inspectors are authorized to refuse to permit accompaniment by any individual who deliberately interferes with a fair and orderly inspection. With regard to any area containing proprietary information, the workers' representative for the area shall be an individual previously authorized by the registrant to enter that area.

#### RHB 10.6 Consultation with Workers During Inspections.

10.6.1 Department inspectors may consult privately with workers concerning matters of occupational radiation protection and other matters related to the extent of an effective and thorough inspection.

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10.6.2 During the course of an inspection any worker may bring privately to the attention of the inspectors, either orally or in writing, any past or present condition which the worker has reason to believe may have contributed to or caused any violation of the Act, or these regulations, or any unnecessary exposure of an individual to radiation from x-ray producing equipment under the registrant's control. Any such notice in writing shall comply with the requirements of RHB 10.7.1.

10.6.3 The provisions of RHB 10.6.2 of this section shall not be interpreted as authorization to disregard instructions pursuant to RHB 10.3.

### RHB 10.7 Request by Workers for Inspections.

10.7.1 Any worker or representative of workers who believes that a violation of the Act, or these regulations exists or has occurred in work under a registrant with regard to radiological working conditions in which the worker is engaged, may request an inspection by giving notice of the alleged violation to the Department. Any such notice shall be in writing and shall set forth the specific grounds for the notice. A copy shall be provided to the registrant by the Department no later than at the time of inspection.

10.7.2 If, upon receipt of such notice, the Deputy Commissioner for Health Regulation or the Chief of the Bureau of Radiological Health determines that the complaint meets the requirements set forth in RHB 10.7.1 of this section, and that there are reasonable grounds to believe that the alleged violation exists or has occurred, he shall cause an inspection to be made as soon as practicable, to determine if such alleged violation exists or has occurred. Inspections pursuant to this section need not be limited to matters referred to in this complaint.

10.7.3 No registrant shall discharge or in any manner discriminate against any worker because such worker has filed any complaint or instituted or caused to be instituted any proceeding under these regulations or has testified or is about to testify in any such proceeding or because of the exercise by such worker on behalf of the worker or others of any option afforded by this Part.

### RHB 10.8 Inspections not Warranted. Informal Review.

10.8.1 If the Chief of the Bureau of Radiological Health determines, with respect to a complaint under RHB10.7 that an inspection is not warranted because there are no reasonable grounds to believe that a violation exists or has occurred, the Bureau Chief shall notify the complainant, if identified, in writing of such determination. The complainant, if identified, may obtain a review of such determination by submitting a written statement of position with the Deputy Commissioner for Health Regulation, who will provide the registrant with a copy of such statement by certified mail, excluding, at the request of the complainant, the name of the complainant. The registrant may submit an opposing written statement of position with the Bureau of Radiological Health who will provide the complainant with a copy of such statements by certified mail. Upon the request of the complainant, the Bureau of Radiological Health may hold an informal conference in which the complainant and the registrant may orally present their views. An informal conference may also be held at the request of the registrant, but disclosure of the identity of the complainant will be made only following receipt written authorization from the complainant. After considering all written or oral views present, the Deputy Commissioner for Health Regulation shall affirm, modify, or reverse the determination of the Chief of the Bureau of Radiological Health and furnish the complainant and the registrant a written notification of the decision and the reason therefore.

10.8.2 If the Chief of the Bureau of Radiological Health determines that an inspection is not warranted because the requirements of RHB 10.7.1 have not been met, he shall notify the complainant in writing of such determination. Such determination shall be without prejudice to the filing of a new complaint meeting the requirements of RHB 10.7.1.



RHB 10.9 Right to Inspect and Investigate.

The Department of Health and Environmental Control is the state agency responsible for the control and regulation of radiation sources. Section 13-7-40(A), S.C. Code of Laws (1976, as amended). By statute, the Department is authorized to enter, at all reasonable times, private or public property for the purpose of determining whether or not there is compliance with or violation of the provisions of its regulations. Section 13-7-40(A), S.C. Code of Laws (1976, as amended). Because the Department is authorized by law to enter and inspect property in order to determine compliance with Department regulations, such entry and inspection falls under the health oversight activities exception of Health Insurance Portability and Accountability Act (HIPAA). Therefore, where protected health information is necessary for determining compliance with Department regulations, protected health information may be used and disclosed to the Department without the subject's authorization under HIPAA.

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### PART XI REGIONAL CALIBRATION LABORATORY

#### RHB 11.1 Scope.

This part establishes operating requirements and fees for the South Carolina Regional Calibration Laboratory (SCRCL).

#### RHB 11.2 Operations.

11.2.1 The SCRCL shall maintain a current accreditation status as directed by the Conference of Radiation Control Program Directors.

11.2.2 The SCRCL shall perform accredited calibration procedures that will be traceable to the National Institute of Standards and Technology.

11.2.2.1 The SCRCL shall perform yearly proficiency tests under the guidance of, and in coordination with, the National Institute of Standards of Technology.

11.2.3 The SCRCL shall maintain current written operating procedures. The policies of the operating procedures will be followed for all instruments entrusted to the SCRCL for calibration.

11.2.4 Each instrument received shall be surveyed for contamination. Contaminated instruments will not be calibrated at the South Carolina Regional Calibration Laboratory.

11.2.5 Each Geiger-Mueller, Ion Chamber and R Meter will be calibrated at two (2) points on each scale.

#### RHB 11.3 Fees.

11.3.1 A fee shall be charged for each instrument and probe calibrated at the SCRCL. The following table shall be used by the Department to determine calibration fees:

Type of Instrument	Fee
Geiger-Mueller (GM)	\$75
Ion Chamber	
First mode	\$75
Second mode	\$18.75
R Meter	\$50
MDH 1015 or 1515	
One probe-five calibration points	\$250
Additional probe-five calibration points	\$106.25
MDH 2025	
One probe- five calibration points	\$106.25
Additional probe-five calibration points	\$75
Dosimeter response check	\$18.75

Replacement Carbon Zinc Batteries	
15 volts (NEDA 220)	Market price plus tax
22.5 volts (NEDA 221)	
22.5 volts (NEDA 215)	
30 volts (NEDA 210)	
67.5 volts (NEDA 416)	
300 volts (NEDA 722)	
Replacement desiccant pellets	Market price plus tax
Minimum handling fee, any instrument-no calibration	\$18.75

11.3.2 Shipping and insurance charges will be added to calibration fees for instruments requiring mail services. Charges will be the same as the cost to the Department.

11.3.3 An invoice for calibrations and other services will be issued to the person or organization requesting the calibration. All fees are due upon receipt of the invoice.

**Fiscal Impact Statement:**

There will be no increased costs to the State or its political subdivisions with the implementation of these amendments. This program is funded by the collection of fees from the regulated community as mandated by the Atomic Energy and Radiation Control Act. The Act requires the cost of running the program to be recovered through the collection of fees.

**Statement of Need and Reasonableness:**

This statement of need and reasonableness was determined by staff analysis pursuant to S.C. Code Section 1-23-115(C) (1)-(3) and (9)-(11).

DESCRIPTION OF REGULATION: R.61-64, X-rays (Title B).

Purpose: The amendment updates the regulations pertaining to x-ray equipment and facilities that utilize x-ray equipment.

Legal Authority: R.61-64, X-rays (Title B) is authorized by the S.C. Code Ann. Section 13-7-10 et seq.; 13-7-40; and 13-7-45.

Plan for Implementation: These amendments take effect upon approval of the Board of Health and Environmental Control, the General Assembly, and publication as a final regulation in the S.C. State Register. These amendments will be implemented by providing the regulated community with copies of the regulation.

**DETERMINATION OF NEED AND REASONABLENESS OF THE REGULATION BASED ON ALL FACTORS HEREIN AND EXPECTED BENEFITS:**

The changes are needed in order to update existing regulations due to technological advances. The changes will strengthen equipment performance standard testing and ensure that the x-ray equipment is compatible with Federal equipment standards. The language changes will clarify many Sections and Parts of the regulation. Added new requirements will promote greater health and safety to the public, delete requirements that are no longer applicable, and make stylistic and grammatical changes.

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The fees are needed and reasonable because the cost of running the program is authorized through collection of fees from the regulated community as mandated by statute.

### **DETERMINATION OF COSTS AND BENEFITS:**

#### **Cost to the State:**

There will be no costs to the state and its political subdivisions with the implementation of these amendments. This program is funded by the collection of fees from the regulated community as mandated by the Atomic Energy and Radiation Control Act. This Act requires the cost of running the program to be recovered through the collection of fees.

#### **Cost to the Regulated Community:**

There are no existing fee increases in this amendment of R.61-64. However, the Department has included a one-time new application fee of \$62.50 for x-ray vendors. This fee is considered minimal to offset the cost of application review and administrative costs.

Also, X-ray facilities that are located out-of-state, that want to operate temporarily in the State of South Carolina, was added to meet the application and registration fee requirements. These requirements will include out-of-state facilities to pay a one-time application fee of \$62.50 and an annual registration fee of \$156.25. These fees are considered minimal to offset the cost of inspection, application review, and administrative costs.

Also, a Mammography follow-up inspection fee of \$500.00 was added. Follow-up inspections for Mammography facilities are rare. In 2007, no Mammography follow-up inspections were needed. In 2006, there was only one follow-up needed. It should be noted that in the event the Food and Drug Administration were to conduct this follow-up Mammography inspection, the cost to the facility would be \$1,144.00. These additional fees will offset the recovery costs involved with review time, the classification process, and inspections.

### **UNCERTAINTIES OF ESTIMATES:**

There are no known uncertainties of estimates.

### **EFFECT ON ENVIRONMENT AND PUBLIC HEALTH:**

There will be no effect upon the environment. The amendments will have a positive effect upon the public health of the citizens of the state. The revisions of R.61-64 will clarify the intent of the overall regulation.

### **DETRIMENTAL EFFECTS ON THE ENVIRONMENT AND PUBLIC HEALTH IF THE REGULATIONS ARE NOT IMPLEMENTED:**

There will be no detrimental effects on the environment if these changes are not implemented. The public health of the citizens could possibly be affected if the new x-ray modalities that are being introduced on the market are not regulated.

### **Statement of Rationale:**

As a result of the 2007 statutory five-year review of this regulation and advancing technologies in x-ray equipment and facilities that utilize x-ray equipment, the Department determined it was necessary to substantially amend R.61-64 to bring it up-to-date.

Document No. 4034  
**COMMISSION ON HIGHER EDUCATION**  
 CHAPTER 62  
 Statutory Authority: 1976 Code Section 59-149-10

62-600. Determination of Rates of Tuition and Fees

**Synopsis:**

R.62-600 of Chapter 62 is being amended and replaced in its entirety. Revisions to the existing regulation for the SC Residency Regulation are being considered to clarify the policies and procedures for administering the program. In the proposed amendment, the definition of a dependent is clarified and the use of voter registration cards to prove SC residency will be prohibited. In addition, institutional residency officers will be allowed to develop an appeal process for students to challenge institutional residency decisions. There are also additional clarifications being proposed, such as adding definitions and minor grammatical changes to promote consistency among the State institutions and their residency classification processes.

**Instructions:**

Amend and replace in its entirety R.62-600 through 62-612 with the following.

**Text:**

Table of Contents:

- 62-600. Rates of Tuition and Fees.
- 62-601. Code of Laws Governing Residence.
- 62-602. Definitions.
- 62-603. Citizens and Permanent Residents.
- 62-604. Non-Resident Aliens, Non-Citizens, and Non-Permanent Residents.
- 62-605. Establishing the Requisite Intent to Become a South Carolina Domiciliary.
- 62-606. Maintaining Residence.
- 62-607. Effect of Change of Residency.
- 62-608. Effect of Marriage.
- 62-609. Exceptions.
- 62-610. Application for Change of Resident Status.
- 62-611. Incorrect Classification.
- 62-612. Inquiries and Appeals.

62-600. Rates of Tuition and Fees.

A. Resident classification is an essential part of tuition and fee determination, admission regulations, scholarship eligibility, and other relevant policies of the state. It is important that institutions have fair and equitable regulations that can be administered consistently and are sensitive to the interests of both students and the state. The Commission on Higher Education hereby establishes regulations for the Statute Governing Residency for Tuition and Fee Purposes to be applied consistently by all South Carolina institutions of higher education. These regulations do not address residency matters relating to in county categories used within the State's technical colleges.

B. Institutions of higher education are required by the Statute to determine the residence classification of applicants. The initial determination of one's resident status is made at the time of admission. The

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determination made at that time, and any determination made thereafter, prevails for each subsequent semester until information becomes available that would impact the existing residency status and the determination is successfully challenged. The burden of proof rests with the students to show evidence as deemed necessary to establish and maintain their residency status.

### 62-601. Code of Laws Governing Residence.

Rules regarding the establishment of legal residence for tuition and fee purposes for institutions of higher education are governed by Title 59, Chapter 112 of the 1976 South Carolina Code of Laws, as amended.

### 62-602. Definitions.

A. "Academic Session" is defined as a term or semester of enrollment. (62-607.B)

B. "Continue to be Enrolled" is defined as continuous enrollment without an interruption that would require the student to pursue a formal process of readmission to that institution. Formal petitions or applications for change of degree level shall be considered readmissions. (62-607.A)

C. "Dependent Person" is defined as one whose predominant source of income or support is from payments from a parent, spouse, or guardian, who claims the dependent person on his/her federal income tax return. In the case of those individuals who are supported by family members who do not earn enough reportable income for taxation purposes, a dependent person can be defined as one who qualifies as a dependent or exemption on the federal income tax return of the parent, spouse, or guardian. A dependent person is also one for whom payments are made, under court order, for child support and the cost of the dependent person's college education. A dependent person's residency is based upon the residency of the person upon whom they are dependent. (62-602.G) (62-602.N) (62-603.B) (62-605.C) (62-607.A)

D. "Domicile" is defined as the true, fixed, principal residence and place of habitation. It shall indicate the place where a person intends to remain, or to where one expects to return upon leaving without establishing a new domicile in another state. For purposes of this section, one may have only one legal domicile. One is presumed to abandon automatically an old domicile upon establishing a new one. Housing provided on an academic session basis for student at institutions shall be presumed not to be a place of principal residence, as residency in such housing is by its nature temporary. (62-602.E) (62-602.K) (62-602.M) (62-602.N) (62-603.A) (62.603.B) (62-605.B) (62-605.C) (62-607.A) (62-607.B) (62-608.A) (62-608.C) (62-608.D) (62-609.A.3) (62-609.A.4)

E. "Family's Domicile in this State is Terminated" is defined as an employer directed transfer of the person upon whom the student is dependent and is not construed to mean a voluntary change in domicile. Also included is a relocation of the person upon whom the student is dependent who is laid off through no fault of their own, e.g., plant closure, downsizing, etc., who accepts employment in another state prior to relocating. (62-607.A)

F. "Full time employment" is defined as employment that consists of at least thirty seven and one half hours a week on a single job in a full time status, with gross earnings of at least minimum wage. However, a person who works less than thirty seven and one half hours a week but receives or is entitled to receive full time employee benefits shall be considered to be employed full time if such status is verified by the employer. A person who meets the eligibility requirements of the Americans with Disabilities Act must present acceptable evidence that they satisfy their prescribed employment specifications in order to qualify as having full time employment. (62-605.C.1) (62-609.A.2) (62-609.A.3)

G. "Guardian" is defined as one legally responsible for the care and management of the person or property of a minor child based upon the five tests for dependency prescribed by the Internal Revenue Service; provided, however, that where circumstances indicate that such guardianship or custodianship was created

primarily for the purpose of conferring South Carolina domicile for tuition and fee purposes on such child or dependent person, it shall not be given such effect. (62-602.C) (62-602.E) (62-602.I) (62-602.M) (62-603.B) (62-605.C)

H. "Immediately Prior" is defined as the period of time between the offer of admission and the first day of class of the term for which the offer was made, not to exceed one calendar year. (62-607.A)

I. "Independent Person" is defined as one in his/her majority (eighteen years of age or older) or an emancipated minor, whose predominant source of income is his/her own earnings or income from employment, investments, or payments from trusts, grants, scholarships, commercial loans, or payments made in accordance with court order. An independent person must provide more than half of his or her support during the twelve months immediately prior to the date that classes begin for the semester for which resident status is requested. An independent person cannot claim the domicile of another individual as their own for the purposes of establishing intent to become a South Carolina resident. An independent person must have established his/her own domicile for twelve months prior to receiving instate tuition and fees. An independent person cannot be claimed as a dependent or exemption on the federal tax return of his or her parent, spouse, or guardian for the year in which resident status is requested. (62-602.N) (62-603.A) (62-605.C) (62-607.B) (62-608.B)

J. "Minor" is defined as a person who has not attained the age of eighteen years. An "emancipated minor" shall mean a minor whose parents have entirely surrendered the right to the care, custody and earnings of such minor and are no longer under any legal obligation to support or maintain such minor. (62-602.G)

K. "Non-resident Alien" is defined as a person who is not a citizen or permanent resident of the United States. By virtue of their non-resident status "non-resident aliens" generally do not have the capacity to establish domicile in South Carolina. (62-602.M) (62-604.A)

L. "Parent" is defined as the father, mother, stepfather, stepmother, foster parent or parent of a legally adopted child. (62-602.C) (62-602.E) (62-602.I) (62-602.J) (62-602.M) (62-603.B) (62-603.C) (62-605.C)

M. "Reside" is defined as continuous and permanent physical presence within the State, provided that absences for short periods of time shall not affect the establishment of residence. Excluded are absences associated with requirements to complete a degree, absences for military training service, and like absences, provided South Carolina domicile is maintained. (62-603.A) (62-606.B) (62-609.A) (62-609.A.3) (62-609.A.4) (62-609.B)

N. "Resident" for tuition and fee purposes is defined as an independent person who has abandoned all prior domiciles and has been domiciled in South Carolina continuously for at least twelve months immediately preceding the first day of class of the term for which resident classification is sought and for whom there is an absence of domiciliary evidence in other states or countries, notwithstanding other provisions of the Statute. (62-600.A) (62-600.B) (62-602.I) (62-602.K) (62-602.M) (62-603.A) (62-603.B) (62-603.C) (62-604.A) (62-605.A) (62-605.C) (62-605.C.7) (62-606.A) (62-606.A.5) (62-606.B) (62-607.A) (62-608.B) (62-609.A.3) (62-610.A) (62-610.B) (62-611.A) (62-611.B)

O. "Spouse" is defined as the husband or wife of a married person in accordance with Title 20, Chapter 1 of the 1976 South Carolina Code of Laws, as amended. (62-602.C) (62-602.E) (62-602.I) (62-602.M) (62-603.B) (62-605.C)

P. "Temporary Absence" is defined as a break in enrollment during a fall or spring semester (or its equivalent) during which a student is not registered for class. (62-606.A)

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Q. “Terminal Leave” is defined as a transition period following active employment and immediately preceding retirement (with a pension or annuity), during which the individual may use accumulated leave. (62-609.A.4)

R. “United States Armed Forces” is defined as the United States Air Force, Army, Marine Corps, Navy, and Coast Guard. (62-606.B) (62-609.A(1))

S. “Trust” is defined as a legal entity created by a grantor for the benefit of designated beneficiaries under the laws of the state and the valid trust instrument. However, that where circumstances indicate that such trust was created primarily for the purpose of conferring South Carolina domicile for tuition and fee purposes on such child or independent person, it shall not be given such effect.

### 62-603. Citizens and Permanent Residents.

A. Independent persons who have physically resided and been domiciled in South Carolina for twelve continuous months immediately preceding the date the classes begin for the semester for which resident status is claimed may qualify to pay in state tuition and fees. The twelve month residency period starts when the independent person establishes the intent to become a South Carolina resident per Section 62-605 entitled “Establishing the Requisite Intent to Become a South Carolina Domiciliary.” The twelve month residency period cannot start until the absence of indicia in other states is proven. Absences from the State during the twelve month period may affect the establishment of permanent residence for tuition and fee purposes.

B. The resident status of a dependent person is based on the resident status of the person who provides more than half of the dependent person’s support and claims or, only in the case of those individuals who are supported by family members who do not earn enough reportable income for taxation purposes, qualifies to claim the dependent person as a dependent for federal income tax purposes. Thus, the residence and domicile of a dependent person shall be presumed to be that of their parent, spouse, or guardian.

C. In the case of divorced or separated parents, the resident status of the dependent person may be based on the resident status of the parent who claims the dependent person as a dependent for tax purposes; or based on the resident status of the parent who has legal custody or legal joint custody of the dependent person; or based on the resident status of the person who makes payments under a court order for child support and at least the cost of his/her college tuition and fees.

### 62-604. Non-Resident Aliens, Non-Citizens, and Non-Permanent Residents.

A. Except as otherwise specified in this section or as provided in Section 62-609 (1) & (2), independent non-citizens and non-permanent residents of the United States will be assessed tuition and fees at the non-resident, out of state rate. Independent non-resident aliens, including refugees, asylees, and parolees may be entitled to resident, in state classification once they have been awarded permanent resident status by the U.S. Department of Justice and meet all the statutory residency requirements provided that all other domiciliary requirements are met. Time spent living in South Carolina immediately prior to the awarding of permanent resident status does not count toward the twelve month residency period. Certain non resident aliens present in the United States in specified visa classifications are eligible to receive in state residency status for tuition and fee purposes as prescribed by the Commission on Higher Education. They are not, however, eligible to receive state sponsored tuition assistance/scholarships.

B. Title 8 of the Code of Federal Regulations (CFR) serves as the primary resource for defining visa categories.



## 62-605. Establishing the Requisite Intent to Become a South Carolina Domiciliary.

A. Resident status may not be acquired by an applicant or student while residing in South Carolina for the primary purpose of enrollment in an institution or for access to state supported programs designed to serve South Carolina residents. An applicant or student from another state who comes to South Carolina usually does so for the purpose of attending school. Therefore, an applicant or student who enrolls as a non-resident in an institution is presumed to remain a non-resident throughout his or her attendance and does not qualify under any of the residency provisions.

B. If a person asserts that his/her domicile has been established in this State, the individual has the burden of proof. Such persons should provide to the designated residency official of the institution to which they are applying any and all evidence the person believes satisfies the burden of proof. The residency official will consider any and all evidence provided concerning such claim of domicile, but will not necessarily regard any single item of evidence as conclusive evidence that domicile has been established.

C. For independent persons or the parent, spouse, or guardian of dependent persons, examples of intent to become a South Carolina resident may include, although any single indicator may not be conclusive, the following indicia:

1. Statement of full time employment;
2. Designating South Carolina as state of legal residence on military record;
3. Possession of a valid South Carolina driver's license, or if a non-driver, a South Carolina identification card. Failure to obtain this within 90 days of the establishment of the intent to become a South Carolina resident will delay the beginning date of residency eligibility until a South Carolina driver's license is obtained;
4. Possession of a valid South Carolina vehicle registration card. Failure to obtain this within 45 days of the establishment of the intent to become a South Carolina resident will delay the beginning date of residency eligibility until the applicant obtains a South Carolina vehicle registrations card;
5. Maintenance of domicile in South Carolina;
6. Paying South Carolina income taxes as a resident during the past tax year, including income earned outside of South Carolina from the date South Carolina domicile was claimed;
7. Ownership of principal residence in South Carolina; and
8. Licensing for professional practice (if applicable) in South Carolina.

D. The absence of indicia in other states or countries is required before the student is eligible to pay in state rates.

## 62-606. Maintaining Residence.

A. A person's temporary absence from the State does not necessarily constitute loss of South Carolina residence unless the person has acted inconsistently with the claim of continued South Carolina residence during the person's absence from the State. The burden is on the person to show retention of South Carolina residence during the person's absence from the State. Steps a person should take to retain South Carolina resident status for tuition and fee purposes include:

1. Continuing to use a South Carolina permanent address on all records;
2. Maintaining South Carolina driver's license;
3. Maintaining South Carolina vehicle registration;
4. Satisfying South Carolina resident income tax obligation. Individuals claiming permanent residence in South Carolina are liable for payment of income taxes on their total income from the date that they established South Carolina residence. This includes income earned in another state or country.

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B. Active duty members of the United States Armed Forces and their dependents are eligible to pay in state tuition and fees as long as they continuously claim South Carolina as their state of legal residence during their military service. Documentation will be required in all cases to support this claim. South Carolina residents who change their state of legal residence while in the military lose their South Carolina resident status for tuition and fee purposes.

### 62-607. Effect of Change of Residency.

A. Notwithstanding other provisions of this section, any dependent person of a legal resident of this state who has been domiciled with his/her family in South Carolina for a period of not less than three years and whose family's domicile in this state is terminated immediately prior to his/her enrollment may enroll at the in state rate. Any dependent person of a legal resident of this state who has been domiciled with his/her family in South Carolina for a period of not less than three years and whose family's domicile in this state is terminated after his/her enrollment may continue to receive in state rates, however, a student must continue to be enrolled and registered for classes (excluding summers) in order to maintain eligibility to pay in state rates in subsequent semesters. Transfers within or between South Carolina colleges and universities of a student seeking a certificate, diploma, associate, baccalaureate, or graduate level degree does not constitute a break in enrollment.

B. If a dependent or independent person voluntarily leaves the state, and information becomes available that would impact the existing residency status, eligibility for in state rates shall end on the last day of the academic session during which domicile is lost. Application of this provision shall be at the discretion of the institution involved. However, a student must continue to be enrolled and registered for classes (excluding summers) in order to maintain eligibility to pay in state rates in subsequent semesters.

### 62-608. Effect of Marriage.

A. In ascertaining domicile of a married person, irrespective of gender, such a review shall be determined just as for an unmarried person by reference to all relevant evidence of domiciliary intent.

B. If a non-resident marries a South Carolina resident, the non-resident does not automatically acquire South Carolina resident status. The non-resident may acquire South Carolina resident status if the South Carolina resident is an independent person and the non-resident is a dependent of the South Carolina resident.

C. Marriage to a person domiciled outside South Carolina shall not be solely the reason for precluding a person from establishing or maintaining domicile in South Carolina and subsequently becoming eligible or continuing to be eligible for residency.

D. No person shall be deemed solely by reason of marriage to a person domiciled in South Carolina to have established or maintained domicile in South Carolina and consequently to be eligible for or to retain eligibility for South Carolina residency.

### 62-609. Exceptions.

A. Persons in the following categories qualify to pay in state tuition and fees without having to establish a permanent home in the state for twelve months. Persons who qualify under any of these categories must meet the conditions of the specific category on or before the first day of class of the term for which payment of in state tuition and fees is requested. The following categories apply only to in state tuition and do not apply to State supported scholarships and grants. Individuals who qualify for in state tuition and fees under the following exceptions do not automatically qualify for LIFE, SC HOPE or Palmetto Fellows Scholarships.

1. “Military Personnel and their Dependents”: Members of the United States Armed Forces who are permanently assigned in South Carolina on active duty and their dependents are eligible to pay in state tuition and fees. When such personnel are transferred from the State, their dependents may continue to pay in state tuition and fees as long as they are continuously enrolled. Such persons (and their dependents) may also be eligible to pay in state tuition and fees as long as they are continuously enrolled after their discharge from the military, provided they have demonstrated an intent to establish a permanent home in South Carolina and they have resided in South Carolina for a period of at least twelve months immediately preceding their discharge. Military personnel who are not stationed in South Carolina and/or former military personnel who intend to establish South Carolina residency must fulfill the twelve month “physical presence” requirement for them or their dependents to qualify to pay in state tuition and fees.

2. “Faculty and Administrative Employees with Full Time Employment and their Dependents”: Full time faculty and administrative employees of South Carolina state supported colleges and universities and their dependents are eligible to pay in state tuition and fees.

3. “Residents with Full Time Employment and their Dependents:” Persons who reside, are domiciled, and are full time employed in the State and who continue to work full time until they meet the twelve month requirement and their dependents are eligible to pay in state tuition and fees, provided that they have taken steps to establish a permanent home in the State. Steps an independent person must take to establish residency in South Carolina are listed in Section 62-605 entitled (“Establishing the Requisite Intent to Become a South Carolina Domiciliary”).

4. “Retired Persons and their Dependents:” Retired persons who are receiving a pension or annuity who reside in South Carolina and have been domiciled in South Carolina as prescribed in the Statute for less than a year may be eligible for in state rates if they maintain residence and domicile in this State. Persons on terminal leave who have established residency in South Carolina may be eligible for in state rates even if domiciled in the State for less than one year if they present documentary evidence from their employer showing they are on terminal leave. The evidence should show beginning and ending dates for the terminal leave period and that the person will receive a pension or annuity when he/she retires.

B. South Carolina residents who wish to participate in the Contract for Services program sponsored by the Southern Regional Education Board must have continuously resided in the State for other than educational purposes for at least two years immediately preceding application for consideration and must meet all other residency requirements during this two year period.

#### 62-610. Application for Change of Resident Status.

A. Persons applying for a change of resident classification must complete a residency application/petition and provide supporting documentation prior to a reclassification deadline as established by the institution.

B. The burden of proof rests with those persons applying for a change of resident classification who must show required evidence to document the change in resident status.

#### 62-611. Incorrect classification.

A. Persons incorrectly classified as residents are subject to reclassification and to payment of all non-resident tuition and fees not paid. If incorrect classification results from false or concealed facts, such persons may be charged tuition and fees past due and unpaid at the out of state rate. The violator may also be subject to administrative, civil, and financial penalties. Until these charges are paid, such persons will not be allowed to receive transcripts or graduate from a South Carolina institution.

B. Residents whose resident status changes are responsible for notifying the Residency Official of the institution attended of such changes.

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### 62-612. Inquiries and Appeals.

A. Inquiries regarding residency requirements and determinations should be directed to the institutional residency official.

B. Each institution will develop an appeals process to accommodate persons wishing to appeal residency determinations made by the institution's residency official. Each institutions appeal process should be directed by that institutions primary residency officer, in conjunction with those individuals who practice the application of State residency regulations on a daily basis. The professional judgment of the residency officer and administrators will constitute the institutional appeal process. Neither the primary residency official nor appellate official(s) may waive the provisions of the Statute or regulation governing residency for tuition and fee purposes.

#### **Fiscal Impact Statement:**

No additional state funding is requested. The SC Commission on Higher Education estimates that no additional costs will be incurred by the State and its political subdivisions by approving the above regulations.

#### **Statement of Rationale:**

The SC Commission on Higher Education is mandated to promulgate regulation and establish procedures for the determination of tuition and fee rates.

Document No. 4031  
**COMMISSION ON HIGHER EDUCATION**  
CHAPTER 62  
Statutory Authority: 1976 Code Section 59-149-10

62-1200.1 to 62-1200.75. Legislative Incentives for Future Excellence (LIFE) Scholarship & Legislative Incentives for Future Excellence (LIFE) Scholarship Enhancement

#### **Synopsis:**

This proposed regulation will clarify the policies and procedures for administering the LIFE Scholarship Program at the public and independent colleges and universities in the state. The proposed regulation includes the eligibility criteria that students must meet in order to be awarded a LIFE Scholarship and a LIFE Scholarship Enhancement. In addition, the proposed regulation also provides the procedures that institutions must follow when determining students' eligibility and when disbursing LIFE Scholarship Enhancement funds to eligible students. This regulation is being promulgated to implement this legislative mandate by including the appropriate language in the awarding procedures.

#### **Instructions:**

Repeal in its entirety R.62-900.1 through 62-900.70, LIFE Scholarship Program, and add R.62-1200.1 through 62-1200.75, LIFE Scholarship Program & LIFE Scholarship Enhancement.

**Explanation:** Although R.62-1200.1 through 62-1200.75 are new regulations, they are based on existing R.62-900.1 through R.62-900.70. In order to show the changes that were made when these regulations were moved, the stricken text and underlined text below shows the text to be deleted and the text to be added to R.62.900.1 through 62-900.70, and these changes will be incorporated into the new regulations, R.62-1200.1 through R.62-1200.75.

**Text:**

## LIFE Scholarship Program &amp; LIFE Scholarship Enhancement

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62-1200.75	Suspension and Termination of Institutional Participation: LIFE Scholarship and LIFE Scholarship Enhancement

## 62-1200.1 Purpose of the LIFE Scholarship Program

Pursuant to Act 418, which was initially established in 1998 as Title 59 of the 1976 code and amended by Act 162 during the 2005 legislative session, the Commission on Higher Education shall promulgate regulation and establish procedures for administration of the LIFE Scholarship Program. The General Assembly established the LIFE Scholarship Program in order to increase the access to higher education, improve the employability of South Carolina's students so as to attract business to the State, provide incentives for students to be better prepared for college, and to encourage students to graduate from college on time.

With Act 115, which was established in 2007 as Title 59 of the 1976 code during the 2007 legislative session, the General Assembly established the LIFE Scholarship Enhancement in order to increase the number of students in the State majoring in mathematics and science and to increase the access to higher education, improve the employability of South Carolina's students so as to attract business to the State, provide incentives for students to be better prepared for college, and to encourage students to graduate from college on time. Students enrolled at two-year institutions are not eligible to receive a LIFE Scholarship Enhancement. In order to receive a LIFE Scholarship Enhancement, all students must qualify for the LIFE Scholarship as stipulated herein.

## 62-1200.5 Program Definitions

A. "Academic year" is defined as the twelve month period during which a full-time student is expected to earn thirty credit hours. The period of time used to measure the academic year will consist of the fall, spring and summer terms (or its equivalent).

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B. A student who has earned a GED diploma or SC High School Diploma through Adult Education without a cumulative GPA may be eligible to earn the LIFE Scholarship at the end of the first academic year of a non-GED program. The student must meet the annual credit hour requirement (or equivalent) and a 3.0 “LIFE GPA” at the end of the first academic year. To qualify for subsequent years, the student must meet all eligibility requirements as stated in Section A above.

C. An “approved five-year bachelor’s degree program” shall mean a five-year bachelor’s program as defined and approved by the Commission on Higher Education to receive the LIFE Scholarship for a maximum of ten terms at the same eligible institution in order to complete the requirements for a bachelor’s degree. An approved five-year bachelor’s degree program does not include inter-institutional and cooperative “3+2” programs (normally in a science degree field and an engineering program).

D. “Annual credit hour requirement” shall be defined as an average of thirty (30) credit hours earned at the end of the academic year based on initial college enrollment at all eligible institutions attended, excluding hours for remedial, continuing education, and non-degree coursework. Credit hours earned before high school graduation, Advanced Placement (AP) credit hours, exempted credit hours, and credit hours earned on active duty must count toward the annual credit hour requirement.

E. “Associate’s degree program” is defined as a two-year technical or occupational program, or at least a two-year program that is acceptable for full credit towards a bachelor’s degree as defined by the U.S. Department of Education.

F. “Attempted credit hours” shall be defined as courses in which a student earns a grade and is included in the grade point calculation for that institution. Eligible credit hours that do not transfer must also be included. Credit hours earned through dual-enrollment prior to high school graduation must be included in the LIFE GPA. Exempted credit hours, Advanced Placement (AP), College Level Examination Program (CLEP), remedial/developmental courses, non-degree credit courses for an associate’s degree or higher, Pass/Fail and non-penalty withdrawal credit hours are excluded from the “attempted credit hours.” If a student transfers, refer to the institution’s grading policy where the credit hours were earned. Any credit hours attempted or earned before high school graduation, hours exempted by examination, or Advanced Placement (AP) credit hours do not count against the terms of eligibility.

G. “Bachelor’s degree program” is defined as an undergraduate program of study leading to a bachelor’s degree as defined by the U.S. Department of Education.

H. “Book allowance” shall mean funds that may be applied to the student’s account for expenses towards the cost-of-attendance including the cost of textbooks.

I. “CIP Code (Classification of Instructional Program)” The U.S. Department of Education’s standard for federal surveys and state reporting for institutional data (majors, minors, options and courses). For the purpose of receiving the LIFE Scholarship Enhancement, CIP codes have been approved by the Commission on Higher Education for eligible degree programs in the fields of mathematics and science.

J. “Cost-of-attendance” as defined by Title IV Regulations and may include tuition, fees, living expenses, and other expenses such as costs related to disability or dependent care.

K. “Cost-of-tuition” shall mean the amount charged for enrolling in credit hours of instruction and mandatory fees assessed to all students. Other fees, charges, or cost of textbooks cannot be included.

L. “Declared major” shall be defined, for the purposes of the LIFE Scholarship Enhancement, as a degree program in which a student is enrolled as a full-time, degree-seeking student. The student must meet all requirements as stipulated by the policies established by the institution and the academic department to be enrolled as a declared major in an eligible program. Students cannot take courses related to a specific program

without meeting institutional and departmental policies and be considered as a declared major. Students must be enrolled as a declared major in an eligible program that is approved and assigned a CIP code by the Commission. Eligible programs are those listed as such on the Commission's website.

M. "Degree-seeking student" is defined as any full-time student enrolled in an eligible institution which leads to the first one-year certificate, first two-year program or associate's degree, or first bachelor's or program of study that is structured so as not to require a bachelor's degree for acceptance into the program and leads to a graduate degree. Upon completion of the first one-year certificate, first two-year program or associate's degree, or first bachelor's or program of study that is structured so as not to require a bachelor's degree for acceptance into the program and leads to a graduate degree, the student cannot use scholarship funds to pursue a program in the same or preceding level. Students are eligible to receive the Scholarship for a maximum of eight terms (or its equivalent) towards an undergraduate degree, as long as all other eligibility requirements are met and the program is approved by the Commission on Higher Education. Students must be enrolled in an undergraduate degree program in order to receive a LIFE Scholarship and a LIFE Scholarship Enhancement each academic term. In cases where students are enrolled in a program of study that is structured so as not to require a bachelor's degree for acceptance into the program and leads to a graduate degree, which will be the students' first academic degree awarded, the students must maintain their undergraduate status to be awarded the LIFE Scholarship and the LIFE Scholarship Enhancement, with the exception of students declaring a major in the Master's of Science in Physician Assistant Studies Program, the Master's of Science in Cytology and Biosciences Program and the Doctor of Pharmacy Program at the University of South Carolina-Columbia and the Medical University of South Carolina. Students who have been awarded a bachelor's degree or graduate degree are not eligible to be awarded a LIFE Scholarship or a LIFE Scholarship Enhancement. Students enrolled in an approved five-year degree program may be eligible to receive a LIFE Scholarship for a fifth year of full-time, undergraduate work and a LIFE Scholarship Enhancement for a fourth year of full-time undergraduate coursework.

N. "Eligible institution" shall be defined, solely for the purposes of the annual credit hour requirement and the LIFE GPA calculation, as an accredited public or independent postsecondary, degree-granting institution located in-state or out-of-state. The institution must be accredited by an agency recognized by the U.S. Department of Education for participation in federally funded financial aid programs. This list may be found on the US Department of Education's website.

O. "Eligible program of study" is defined as a program of study leading to: 1) at least a one-year educational program that leads to a first certificate or other recognized educational credential (e.g., diploma); 2) the first associate's degree; 3) at least a two-year program that is acceptable for full credit towards a bachelor's degree; 4) the first bachelor's degree; or 5) a program of study that is structured so as not to require a bachelor's degree for acceptance into the program and leads to a graduate degree. Students are eligible to receive the LIFE Scholarship for a maximum of eight terms (or its equivalent) towards an undergraduate degree as long as all eligibility requirements are met and the program is approved by the Commission on Higher Education. Students who have been awarded a bachelor's or graduate degree are not eligible for Scholarship or Enhancement funding. Students enrolled in an approved five-year degree program may be eligible to receive a LIFE Scholarship for a fifth year of full-time, undergraduate work and a LIFE Scholarship Enhancement for a fourth year of full-time undergraduate coursework.

P. "Eligible degree program/Qualifying degree program" shall be defined, for the purposes of the LIFE Scholarship Enhancement, as a degree program in mathematics or science as approved by the SC Commission on Higher Education. These programs shall include science and mathematics disciplines, computer science or informational technology, engineering, science education, math education and health care and related disciplines including medicine and dentistry as defined by the Commission on Higher Education. Enrollment in a minor does not meet the requirement of an eligible degree program for a LIFE Scholarship Enhancement. Students must be enrolled as a declared major in an eligible program that is approved and assigned a CIP code by the Commission. Eligible programs must be approved by the South Carolina Commission on Higher Education. Eligible/Qualifying programs are those listed as such on the Commission's website.

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Q. "Felonies" shall be defined as a crimes classified under State statute (16-1-10) and typically require imprisonment for more than one year.

R. "Fifth year/senior year" shall mean any student who is enrolled in his or her ninth or tenth semester of full-time, undergraduate coursework in an approved five-year program following high school graduation. The student is in his/her fifth year of consecutive, full-time college enrollment based on the student's initial date of college enrollment after graduation from high school.

S. "First year student/Freshman" is defined as any student who is enrolled as a first year student in his or her first or second semester of undergraduate coursework following high school graduation.

T. "Fourth year/senior year" shall mean seventh or eighth semester of full-time, undergraduate coursework following high school graduation. The student is in his/her fourth year of consecutive, full-time college enrollment based on the student's initial date of college enrollment after graduation from high school.

U. "Full-time student" shall mean a student who has matriculated into an eligible program of study and who enrolls full-time, usually fifteen credit hours for fall and spring terms or twelve credit hours for fall, eight credit hours for winter, and twelve credit hours for spring trimester terms. The student must earn an average of thirty credit hours per academic year to receive a LIFE Scholarship. In order for the student to be eligible for Scholarship disbursement, the student must be enrolled full-time at the home institution as stipulated by Title IV Regulations, except that credit hours may not include remedial/developmental, continuing education, and non-degree credit courses for an associate's degree or higher.

V. "General Educational Development (GED) Diploma" is defined as a GED high school diploma that was completed in South Carolina or outside of the state while the student was a dependent of a legal resident of South Carolina who had custody or paid child support and college expenses of the dependent GED diploma student. A student who earns a GED diploma cannot receive a LIFE Scholarship during his/her initial year (or equivalent) of college enrollment but may earn the scholarship in subsequent years.

W. "High school" is defined as a high school located in South Carolina, an approved home school program as defined in the State Statute, (Sections 59-65-40, 45, and 47) or a preparatory high school located outside of the state while the student is a dependent of a legal resident of South Carolina who has custody or pays child support and college expenses of the dependent high school student in accordance with State Statute 59-112-10. A "preparatory high school" (out-of-state) is defined as a school recognized by the state in which the school is located to offer curricula through the twelfth grade and prepares students for college entrance.

X. "Home institution" shall mean the institution where the student is currently enrolled as a degree-seeking student and may be eligible for financial aid at the same institution.

Y. "Independent institutions/private institutions" are those institutions eligible to participate in the South Carolina Tuition Grants Program as defined in Chapter 113 of Title 59 of the 1976 Code, which stipulates that an "independent institution of higher learning means any independent eleemosynary junior or senior college in South Carolina which is accredited by the Southern Association of Colleges and Schools; or an independent bachelor's level institution chartered before 1962 whose major campus and headquarters are located within South Carolina; or an independent bachelor's level institution which was incorporated in its original charter in 1962, was granted a license to operate in 1997 by the Commission on Higher Education, has continued to maintain a campus in South Carolina, and is accredited by the Southern Association of Colleges and Schools. Institutions whose sole purpose is religious or theological training or the granting of professional degrees do not meet the definition of 'public or independent institution' for purposes of this chapter."

Z. "Ineligible degree program" shall be defined, for the purposes of the LIFE Scholarship Enhancement, as a degree program that is not included on the Commission's posted list of approved eligible programs and assigned a CIP code.



AA. "Initial college enrollment" shall mean the first time the student enrolls into a postsecondary degree-granting institution after high school graduation, completion of a GED/Adult Education Program or completion of an approved home school program. The terms of eligibility and the annual credit hour requirement are based upon initial college enrollment and continuous enrollment. This means that students must adhere to the 30 credit hour requirement even if they have a break in enrollment. Any break in enrollment (excluding summer) will also count against the terms of eligibility.

BB. "LIFE GPA" shall be defined as the cumulative grade point average calculation that includes credit hours and grades earned at all eligible institutions based on a 4.0 scale. The LIFE grade point average must not include attempted credit hours earned for continuing education courses, non-degree credit courses for an associate's degree or higher and remedial/developmental courses. See Section 62-900.55 for the steps to calculate the "LIFE GPA."

CC. "LIFE Scholarship recipient" is defined as a student who meets all of the eligibility requirements to receive a LIFE Scholarship and is awarded LIFE Scholarship funds during a given academic year. Students who meet the eligibility requirements for a LIFE Scholarship but do not receive any LIFE Scholarship funds, due to the cost of attendance being met by other sources of financial aid, do not meet the definition of a LIFE Scholarship recipient.

DD. "Military mobilization" is defined as a situation in which the U.S. Department of Defense orders members of the United States Armed Forces to active duty away from their normal duty assignment during a time of war or national emergency.

EE. "Misdemeanor offenses" shall be defined as a crimes classified under State statute (16-1-100) which are typically punishable by fine or imprisonment for less than one year. A complete listing is located in title 16 of State statute. Examples of alcohol and drug misdemeanors in South Carolina include but are not limited to possession of alcohol under the age of 21, possession of marijuana/illegal drugs, open-container, transfer of alcohol to person under 21, false information as to age (fake ID), etc.

FF. "Non-degree credit courses" shall be defined as courses that count towards graduation in a certificate or diploma program only. Non-degree credit courses must not be used in the "LIFE GPA" calculation or towards the annual credit hour requirement for an associate's degree or higher.

GG. A "one-year educational program" is defined as an undergraduate program of study leading to recognized credentials (e.g., certificates or diplomas), as defined by the U.S. Department of Education for participation in federally funded financial aid programs and which prepares students for gainful employment in recognized occupations.

HH. "Private institutions" are those institutions eligible to participate in the South Carolina Tuition Grants Program as defined in Chapter 113 of Title 59 of the 1976 Code, which stipulates that an "independent institution of higher learning means any independent eleemosynary junior or senior college in South Carolina which is accredited by the Southern Association of Colleges and Schools; or an independent bachelor's level institution chartered before 1962 whose major campus and headquarters are located within South Carolina; or an independent bachelor's level institution which was incorporated in its original charter in 1962, was granted a license to operate in 1997 by the Commission on Higher Education, has continued to maintain a campus in South Carolina, and is accredited by the Southern Association of Colleges and Schools. Institutions whose sole purpose is religious or theological training or the granting of professional degrees do not meet the definition of 'public or independent institution' for purposes of this chapter."

II. "Program of study that is structured so as not to require a bachelor's degree for acceptance into the program and leads to a graduate degree", which will be the student's first academic degree awarded. Students are eligible to receive the LIFE Scholarship for a maximum of eight terms (or its equivalent) and the LIFE Scholarship Enhancement for a maximum of six terms (or its equivalent) as long as all other eligibility

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requirements are met and the program is approved by the Commission on Higher Education. Students who have been awarded a bachelor's or graduate degree are not eligible for Scholarship funding. Students must maintain their undergraduate status in order to receive a LIFE Scholarship and a LIFE Scholarship Enhancement each academic term, with the exception of students declaring a major in the Master's of Science in Physician Assistant Studies Program, the Master's of Science in Cytology and Biosciences Program and the Doctor of Pharmacy Program at the University of South Carolina-Columbia and the Medical University of South Carolina.

JJ. "Public institutions" are institutions of higher learning as defined in Chapter 103 of Title 59 of the 1976 Code, which stipulates "public higher education shall mean any state supported postsecondary educational institution and shall include technical and comprehensive educational institutions."

KK. "Remedial/developmental coursework" shall mean sub-collegiate level preparatory courses in English, mathematics, reading and any courses classified as remedial by the institution where the course is taken.

LL. "Satisfactory academic progress" shall be defined as the academic progress in the declared major as required by the institution and academic department in which the student is enrolled as a full-time, degree-seeking student. The student must meet all requirements for satisfactory academic progress towards completion of the declared major as established by the policies of both the institution and academic department in which the student is enrolled to meet the requirements of satisfactory academic progress.

MM. "Second year/sophomore year" shall mean any student who is enrolled in his or her third or fourth semester of full-time, undergraduate coursework following high school graduation. The student is in his/her second year of consecutive, full-time college enrollment based on the student's initial date of college enrollment after graduation from high school.

NN. "South Carolina resident" shall be defined as an individual who satisfies the requirements of residency in accordance with the State of South Carolina State Statute for Tuition and Fees, Section 59-112-10 and all related guidelines and regulations promulgated by the Commission on Higher Education as established by the institutional residency officer each academic year.

OO. "Third year/junior year" shall mean the fifth or sixth semester of full-time, undergraduate coursework following high school graduation. The student is enrolled in his/her third year of consecutive, full-time enrollment based on the student's initial date of college enrollment after graduation from high school.

PP. "3 plus 2 programs" is defined, for the purposes of the LIFE Scholarship Enhancement, as a program (typically an engineering major) in which a student completes three years of a baccalaureate program at one institution, at which time the student transfers to a second institution and completes the remaining two years of an undergraduate degree program. When the student completes the fourth year of enrollment, credit hours are transferred back to the initial institution, which confers the first baccalaureate degree (e.g., physics) using articulated credits from the second institution. At the end of the second year of enrollment at the second institution, the student receives the second baccalaureate degree (e.g., engineering). 3 plus 2 programs for the purposes of receiving the LIFE Scholarship Enhancement shall be defined and approved by the SC Commission on Higher Education. Students must be enrolled as a declared major in an eligible program that is approved and assigned a CIP code by the Commission. Enrollment in a minor does not meet the requirement of an eligible degree program for a LIFE Scholarship Enhancement award.

QQ. "Transfer student" shall be defined as a student who has changed enrollment from one institution to a SC public or independent institution.

RR. "Substantially deviates" shall be defined, for the purposes of reviewing out-of-state preparatory high school grading scales, as being less than equivalent to the 2007 Uniform Grading Policy.

## 62-1200.10 Student Eligibility: LIFE Scholarship and LIFE Scholarship Enhancement

A. To be eligible for a LIFE Scholarship, students must:

1. Be a U.S. citizen or a legal permanent resident that meets the definition of an eligible non-citizen under State Residency Statutes; and

2. Be a South Carolina resident for in-state purposes at the time of high school graduation and at the time of enrollment at the institution, as set forth by Section 59-112-10, and be either a member of a class graduating from a high school located in this State, or a student who has successfully completed at least three of the final four years of high school within this State, or a home school student who has successfully completed a high school home school program in this State in the manner required by law, or a student graduating from a preparatory high school outside this State, while a dependent of a parent or guardian who is a legal resident of this State and has custody of the dependent according to State Statute, Section 59-149-50A or a student whose parent or guardian has served in or has retired from one of the United States Armed Forces within the last four years, paid income taxes in this State for a majority of the years of service, and is a resident of this State;

3. Meet two of the following three criteria if a first-time entering freshman at an eligible four-year institution:

a. Earn a cumulative 3.0 grade point average (GPA) based on the Uniform Grading Scale (UGS) upon high school graduation. No other grading policy will be allowed to qualify for the LIFE Scholarship. Grade point averages must be reported to two decimal places (minimum) and may not be rounded. For example, a student who earns a 2.99 GPA is not eligible. Institutions shall use the final GPA as reported on the official transcript.

b. Score at least an 1100 on the Scholastic Assessment Test (SAT) or an equivalent ACT score of 24. Test scores will be accepted through the June national test administration of the SAT and ACT during the year of high school graduation. The student must use the highest SAT Math score combined with the highest SAT Critical Reading score (formerly known as the Verbal score). It is permissible to select scores from different test administrations in order to obtain the qualifying composite score. Students cannot use the Writing subsection score to obtain the qualifying composite score. The composite ACT score must be based upon one test administration.

c. Rank in the top thirty percent of the graduating class consisting of high school diploma candidates only. The rank must also be based on the UGS only. Ranking percentages must be reported to two decimal places (minimum) and may not be rounded. For example, a student who has a class rank of 13 of 43 ( $13/43 \times 100 = 30.23\%$ ) will not rank in the top thirty percent of the class since 30.23% is not within thirty percent. To determine the top thirty percent for graduating classes with three or less students, the student who is ranked number one in the class would be considered in the top thirty percent for LIFE Scholarship eligibility. Institutions shall use the final ranking as reported by the high school on the official transcript. If a student is a member of an approved home school association that ranks, a ranking report must be attached to the official transcript.

d. For the purposes of meeting the rank criterion, the existing high school rank of a South Carolina resident attending an out-of-state high school may be used provided it is calculated pursuant to a state-approved, standardized grading scale at the respective out-of-state high school. If the eligible South Carolina Commission on Higher Education determines that a state-approved standardized grading scale substantially deviates from the S.C. Uniform Grading Policy (UGP), the state-approved, standardized grading scale shall not be used to meet the eligibility requirements for the LIFE Scholarship. The guidance counselor from the out-of-state preparatory school also has the option of converting the cumulative GPAs of all students in the applicant's class to the S.C. UGP to determine if the student ranks within the top thirty percent of the class. To

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be considered equivalent to the SC UPG, the out-of-state school's grading scale must adhere to the following minimum requirements:

(1) Must include all courses carrying Carnegie units, including units earned at the middle school and high school level;

(2) To be equivalent to an "A" letter grade, the numerical average must be  $\geq 93$ ; to be equivalent to a "B" letter grade the numerical average must be between 85 and 92; to be equivalent to a "C" letter grade the numerical average must be between 77 and 84; to be equivalent to a "D" letter grade the numerical average must be between 70 and 76; and to be equivalent to a "F" letter grade the numerical average must be between 62 and 69 (if a course with a numerical average of  $< 62$  is considered passing by the high school the student earned the grade, then a 73 numerical average should be given);

(3) Cannot add more than one half (.50) additional quality point for honors courses; cannot add more than one additional quality point for dual enrollment (DE) courses, Advanced Placement (AP) courses, and standard level International Baccalaureate (IB) courses; and, cannot add more than two additional quality points for higher level IB courses;

(4) Must classify all other courses as College Preparatory if they are not already classified as honors, DE, AP or IB. For a class to be classified as honors, the course must be in English, mathematics, science or social studies or be the third/fourth level for all other content areas; and,

(5) If no numerical average is available, all letter grades must be converted to the equivalent numerical average based on the following: all "A" letter grades must be converted to a 96 numerical average, all "B" letter grades must be converted to a 88 numerical average, all "C" letter grades must be converted to a 80 numerical average, all "D" letter grades must be converted to a 73 numerical average, and all "F" numerical averages must be converted a 61 numerical average.

4. Earn a cumulative 3.0 grade point average (GPA) on the Uniform Grading Scale upon high school graduation and score at least an 1100 on the Scholastic Assessment Test (SAT I) or an equivalent ACT score of 24 if a first-time entering freshman graduates from a non-ranking South Carolina high school, non-ranking South Carolina approved home school association or out-of-state preparatory high school and attends an eligible four-year institution;

5. Earn a cumulative 3.0 grade point average (GPA) upon high school graduation on the Uniform Grading Scale if a first-time entering freshman at an eligible two-year or technical institution. No other grading policy will be allowed to qualify for the LIFE Scholarship. Grade point ratios must be reported to two decimal places (minimum) and may not be rounded. For example, a student who earns a 2.99 GPA is not eligible. Institutions shall use the final GPA as reported by the high school on the official transcript;

6. Be admitted, enrolled full-time, and classified as a degree-seeking student at a public or independent institution in South Carolina;

7. Certify that he/she has never been adjudicated delinquent, convicted, or pled guilty or *nolo contendere* to any felonies or any second or subsequent alcohol/drug related offenses under the laws of this or any other state or under the laws of the United States in order to be eligible for a LIFE Scholarship, except that a high school or college student otherwise qualified who has been adjudicated delinquent or has been convicted or pled guilty or *nolo contendere* to a second or subsequent alcohol or drug-related misdemeanor offense nevertheless shall be eligible or continue to be eligible for such scholarships after the expiration of one academic year from the date of the adjudication, conviction, or plea by submitting an affidavit each academic year to the institution. However, a high school or college student who has been adjudicated delinquent, convicted, or pled guilty or *nolo contendere* to a second alcohol/drug related misdemeanor offense is ineligible for the next academic year of enrollment at an eligible institution after the date of the adjudication, conviction

or plea. If the adjudication, conviction, or plea occurs during the academic year after the student has already submitted a signed affidavit to the institution, the student will be eligible to receive the Scholarship the remainder of the academic year. However, the student will be ineligible for the Scholarship the following entire academic year of enrollment. If a student completes a pretrial intervention program and has his/her record expunged the conviction will not affect Scholarship eligibility; and

8. Certify that he/she has not defaulted and does not owe a refund or repayment on any federal or state financial aid. If a student has an Institutional Student Information Record (ISIR) or its equivalent on file, the ISIR information will be used to verify default status or refund/repayment owed on any Federal or State financial aid. Students who have not completed a Free Application for Federal Student Aid (FAFSA) must have an affidavit on file to verify that he/she is not in default and does not owe a refund or repayment on any Federal or State financial aid including, state grants/scholarships, Federal Pell Grant, Supplemental Educational Opportunity Grant, Perkins Loan and Federal Stafford Loan.

B. Any credit hours attempted or earned before high school graduation, hours exempted by examination, or Advanced Placement (AP) credit hours do not count against the terms of eligibility as provided in State Statute, Section 59-149-60. The credit hours earned before high school graduation can be used toward the credit hour requirement. Credit hours earned through CLEP or AP will be used toward the credit hour requirement.

C. Service members of the United States Armed Forces will not be penalized for any credit hours earned while on active duty. The credit hours earned on active duty will not count against the terms of eligibility, but will be used towards the annual credit hour requirement.

D. First-time entering freshmen will not be penalized for any credit hours earned during the summer session immediately prior to the student's initial college enrollment. The credit hours earned will not count against the terms of eligibility. The credit hours may be used toward the annual credit hour requirement.

E. Students who complete their high school graduation requirements prior to the official graduation date reported on the final high school transcript may be eligible to receive the LIFE Scholarship dependent on the approval of the Commission on Higher Education (CHE). The student must complete and submit an Early Graduation Application, an official high school transcript, an official letter from the high school principal verifying that he/she has met all graduation requirements, and SAT/ACT scores (if attending a four-year institution) by the established deadline. Early graduates cannot use class rank in order to qualify for the LIFE Scholarship at four-year institutions for the spring semester since the class has not officially graduated. A student may use class rank to receive the Scholarship after the class officially graduates. Early graduates who enroll mid-year (spring term) and are awarded the LIFE Scholarship through the Early Graduation process will officially begin their initial college enrollment. In order to receive the LIFE Scholarship the next academic year, the student must earn a minimum of fifteen credit hours and a 3.0 "LIFE GPA" at the end of the academic year. The student will be eligible to receive the maximum number of terms of eligibility based on initial college enrollment. If a student does not submit an early graduation application for the spring term and has not officially graduated, the student should not have received the LIFE Scholarship and that term will not count against his/her terms of Scholarship eligibility.

F. First-time entering freshmen who enroll mid-year (spring semester) are eligible for the LIFE Scholarship if they qualified upon high school graduation.

G. LIFE Scholarship funds may not be applied to the cost of continuing education, remedial/developmental or non-degree credit courses for an associate's degree or higher. Twelve credit hours of the course load must be non-remedial/developmental, non-continuing education or degree-credit courses for an associate's degree or higher in order to receive LIFE Scholarship funds. Continuing education, non-degree credit for an associate's degree or higher and remedial/developmental courses will not be included in the "LIFE GPA" or credit hour calculations.

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H. Non-degree credit hours shall be used to meet the full-time eligibility criteria for a diploma or certificate program only. Students must sign an affidavit certifying that they understand that non-degree credit hours will not be used in calculating the “LIFE GPA” or credit hour requirements if they are enrolled in an Associate’s degree or higher.

I. First-time entering freshmen attending an eligible two-year or technical college who enroll full-time in remedial/developmental courses during the first term(s) will not be eligible for Scholarship funds during this period. Credit hours earned during the term(s) of remedial/developmental enrollment will not be used to determine remaining Scholarship eligibility at the completion of remediation unless the student has completed at least twelve credit hours of non-remedial/developmental coursework each term of enrollment. The student will be eligible for the Scholarship for the term following completion of remediation if the student was eligible to receive the LIFE Scholarship upon high school graduation. If the student requires more than one academic year of remedial/developmental coursework, then he/she will not be eligible for the LIFE Scholarship the term after completion of remediation. If the student was not eligible for the Scholarship upon high school graduation, the student must meet the conditions set forth in Section J below in order to gain the LIFE Scholarship.

J. Students who do not meet the scholarship eligibility requirements upon high school graduation and enroll full-time in remedial/developmental courses must meet the scholarship eligibility requirements (earn a 3.0 “LIFE GPA” and earn an average of thirty credit hours for the academic year) at the end of the first year of enrollment in non-remedial/developmental courses to be eligible to receive the scholarship for the second year of enrollment in non-remedial/developmental courses.

K. Students receiving a LIFE Scholarship are not eligible to receive a Palmetto Fellows Scholarship, SC HOPE Scholarship or Lottery Tuition Assistance in the same academic year.

L. Students who have already been awarded their first bachelor’s degree or graduate degree are not eligible to receive the LIFE Scholarship. In cases where students are enrolled in a program of study that is structured so as not to require a bachelor’s degree for acceptance into the program and leads to a graduate degree, which will be the students’ first academic degree awarded, the students must maintain their undergraduate status in order to receive a LIFE Scholarship and a LIFE Scholarship Enhancement each academic term, with the exception of students majoring in the Master’s of Science in Physician Assistant Studies Program, Master’s of Science in Cytology and Biosciences Program and the Doctor of Pharmacy Program at the University of South Carolina-Columbia and the Medical University of South Carolina.

M. All documents required for determining LIFE Scholarship eligibility must be submitted to the institution by their established deadline(s). Students must submit official transcripts from all previous and current institutions, which provide evidence to calculate the “LIFE GPA,” determine initial college enrollment and earned annual credit hour requirement. Students that complete coursework at another institution at any time during the academic year (fall, spring, summer) must submit an official transcript to the home institution at the end of the academic year to determine eligibility for the LIFE Scholarship.

N. First-time entering freshmen who attended out-of-state preparatory high schools or graduated from a SC high school prior to the full implementation of the Uniform Grading Scale in 2004 (if the high school had not already converted to UGS) must have their high school transcript converted by a designated official appointed by the Commission on Higher Education to the UGS in order to qualify for the LIFE Scholarship. Any fees and requirements for the conversion are the responsibility of the student. Students who attended high school out-of-state must meet the South Carolina residency requirement.

O. To be eligible for a LIFE Scholarship Enhancement each academic year, the student must:

1. Meet all of the eligibility requirements at the end of each academic year to receive a LIFE Scholarship as stipulated by state law and regulation and be a recipient of LIFE Scholarship funds at the time of LIFE Scholarship Enhancement disbursement. The student must receive the underlying LIFE Scholarship;

2. Be enrolled as a full-time, degree-seeking student in a declared major of science or mathematics in an eligible program that is approved and assigned a CIP code by the Commission on Higher Education at the time of disbursement of LIFE Scholarship Enhancement funds. Eligible programs include degrees awarded in math and science fields, computer science or informational technology, engineering, science education, math education and healthcare and related disciplines including medicine and dentistry. The student must meet all requirements for satisfactory academic progress towards completion of the declared major as established by the policies of both the institution and the academic department in which the student is enrolled;

3. Be enrolled at an eligible four-year public or independent institution located in South Carolina;

4. Effective for the 2007-08 academic year only, all students who are enrolled at a four-year institution as a sophomore, junior or senior must meet the continued eligibility requirements of earning a minimum average of 30 credit hours and a minimum 3.0 LIFE GPA as stipulated by law and regulation for the LIFE Scholarship by the end of each academic year, be a recipient of LIFE Scholarship funds, and be enrolled as a full-time, degree-seeking student in a declared major of science or mathematics in an eligible program that is approved and assigned a CIP code by the Commission on Higher Education at the time of disbursement of LIFE Scholarship Enhancement funds. These students may continue to receive the LIFE Scholarship Enhancement for their remaining terms of eligibility for the LIFE Scholarship. To be awarded a LIFE Scholarship Enhancement each year, these students must meet all requirements for the LIFE Scholarship and be enrolled as a full-time, degree-seeking student in a declared major of science or mathematics in an eligible program that is approved and assigned a CIP code by the Commission on Higher Education at the time of disbursement of LIFE Scholarship Enhancement funds;

5. Beginning with the Fall 2007 freshman class and thereafter, all students must have successfully completed a total of at least fourteen credit hours of instruction in mathematics and life and physical science courses, in any combination, by the end of the student's first year of enrollment in college (based on initial date of college enrollment). For purposes of meeting the required minimum level of instruction in mathematics and life and physical science courses during a student's first year, Exempted Credit Hours, College Level Examination Program (CLEP), Dual Enrollment, Pass/Fail courses with a grade of "Pass" (only), International Baccalaureate (IB) courses and Advanced Placement (AP) courses in mathematics and life and physical sciences taken in high school in which the student scored a three or more on the advanced placement test and received college credit may count toward the fulfillment of this minimum requirement. The Commission will issue a list of eligible courses by CIP code for determining eligible coursework to meet the fourteen credit hour requirement. Remedial/developmental, continuing education, non-degree credit coursework and credit hours earned for courses taken after the end of the student's first year of college enrollment cannot be used to meet the specified minimum fourteen credit hour course level requirement to gain eligibility to receive the LIFE Scholarship Enhancement;

6. Meet the continued eligibility requirements for the LIFE Scholarship of a minimum 3.0 LIFE GPA and a minimum average of 30 credit hours by the end of each academic year;

7. Be in the second, third or fourth year of full-time enrollment (based on initial date of college enrollment after high school graduation) at an eligible four-year public or independent institution in South Carolina. Students enrolled full-time in an eligible, approved five-year degree program may also be eligible to receive a LIFE Scholarship Enhancement in their fifth year of college enrollment (based on initial date of college enrollment); and

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8. Students who initially enroll in college mid-year (i.e., spring term) as a freshman and meet the requirements under Section 62-1200.10 may be eligible to receive a LIFE Scholarship Enhancement at the beginning of the spring term of the next academic year (i.e., beginning with the third consecutive term of full-time enrollment based on initial date of college enrollment). The student must earn a minimum average of 15 credit hours and a 3.0 LIFE GPA to be awarded a LIFE Scholarship the following academic year and a minimum average of 30 credit hours by the end of the first academic year (i.e., by the end of the fall term or second consecutive term of full-time enrollment based on initial date of college enrollment) of enrollment to receive a LIFE Scholarship Enhancement beginning the spring term of the second, third and/or fourth year of college enrollment.

P. The LIFE Scholarship and LIFE Scholarship Enhancement are to be annual awards. Half of the Scholarship and Enhancement funds are to be disbursed in the fall and half are to be disbursed in the spring. Students who change their major from an ineligible degree program to an eligible degree program during the same academic year shall not receive the LIFE Scholarship Enhancement until the beginning of the next academic year (i.e., fall term). Students who change their major from an eligible degree program to an ineligible degree program during the same academic year may continue to receive the LIFE Scholarship Enhancement during the current academic year; however, the student cannot be awarded the LIFE Scholarship Enhancement the next academic year of enrollment in an ineligible degree program.

### 62-1200.15 Continued Eligibility: LIFE Scholarship and LIFE Scholarship Enhancement

A. Students must meet the following criteria to renew eligibility for the LIFE Scholarship:

1. Continue to meet all eligibility requirements as stated in the "Student Eligibility" Section;
2. Earn at least a 3.0 "LIFE GPA" by the end of the academic year; and
3. Meet the annual credit hour requirement (or its equivalent) by the end of the academic year based on initial college enrollment:
  - (a) earn a minimum of 30 (or the equivalent) credit hours if entering the second year; or
  - (b) earn a minimum of 60 (or the equivalent) credit hours if entering the third year; or
  - (c) earn a minimum of 90 (or the equivalent) credit hours if entering the fourth year; or
  - (d) earn a minimum of 120 (or its equivalent) credit hours if entering the fifth year of an approved five-year bachelor's degree program.

B. Students who meet the continued eligibility requirements by the end of the spring term and who enroll in Maymester or summer term will not be eligible to receive the LIFE Scholarship if their cumulative grade point average falls below the minimum 3.0 "LIFE GPA" requirement by the end of the summer term.

C. Students who initially enroll in college mid-year (spring term) may be eligible to receive the LIFE Scholarship the next academic year, if the student earns a minimum of fifteen (15) credit hours and a 3.0 "LIFE GPA" at the end of the academic year. For subsequent years, the student must meet the annual credit hour requirement and 3.0 LIFE GPA for renewal:

- (a) earn a minimum of 45 (or the equivalent) credit hours if entering the fourth semester based on initial college enrollment; or
- (b) earn a minimum of 75 (or the equivalent) credit hours if entering the sixth semester based on initial college enrollment; or
- (c) earn a minimum of 105 (or the equivalent) credit hours if entering the eighth semester based on initial college enrollment; or
- (d) earn a minimum of 135 (or its equivalent) credit hours if entering the tenth semester of an approved five-year bachelor's degree program based on initial college enrollment.

The student may be eligible to receive the maximum number of terms of eligibility based on initial college enrollment.



D. Students must meet the following criteria to renew eligibility for the LIFE Scholarship Enhancement:

1. Continue to meet all eligibility requirements as stated in the “Student Eligibility: LIFE Scholarship and the LIFE Scholarship Enhancement” Section;
2. Be a recipient of LIFE Scholarship funds at the time of LIFE Scholarship Enhancement disbursement; and
3. Be enrolled full-time at an eligible four-year public or independent institution as a declared major in an eligible science or mathematics program as stipulated under Section 62-1200.10.

E. Students who meet the continued eligibility requirements by the end of the spring term and who enroll in Maymester or summer term will not be eligible to receive the LIFE Scholarship Enhancement if their cumulative grade point average falls below the minimum 3.0 “LIFE GPA” requirement by the end of the summer term resulting in ineligibility for a LIFE Scholarship. Students who do not meet the continued eligibility requirements to receive the LIFE Scholarship cannot receive a Scholarship or LIFE Scholarship Enhancement for the following academic year.

F. The student may be eligible to receive the maximum number of terms of eligibility (i.e., six consecutive terms) for a LIFE Scholarship Enhancement starting the second year of college enrollment (based on initial date of college enrollment after high school graduation).

#### 62-1200.20 Terms of Eligibility: LIFE Scholarship and LIFE Scholarship Enhancement

A. The maximum number of terms of eligibility is based on the student’s initial college enrollment with the exception of the summer term immediately prior to the student’s initial college enrollment and up to one academic year of full-time enrollment in remedial/developmental coursework.

B. Students may receive a LIFE Scholarship for a maximum of two terms for a one-year educational program, four terms for an associate’s degree program or at least a two-year program that is acceptable for full credit towards a bachelor’s degree, eight terms (or its equivalent) towards the first bachelor’s degree or program of study that is structured so as not to require a bachelor’s degree for acceptance into the program and leads to a graduate degree program or ten consecutive terms towards an approved five-year bachelor’s degree program. (See chart in “C” below.) In cases where students are enrolled in a program of study that is structured so as not to require a bachelor’s degree for acceptance into the program and leads to a graduate degree, which will be the students’ first academic degree awarded, such students must maintain their undergraduate status to be awarded the LIFE Scholarship and the LIFE Scholarship Enhancement each academic term, with the exception of students majoring in the Master’s of Science in Physician Assistant Studies Program, the Master’s of Science in Cytology and Biosciences Program and the Doctor of Pharmacy Program at the University of South Carolina-Columbia and the Medical University of South Carolina. Students who have already been awarded their first bachelor’s degree or graduate degree are not eligible to be awarded a LIFE Scholarship or a LIFE Scholarship Enhancement. Students are eligible to receive the LIFE Scholarship for a maximum of eight consecutive terms (or its equivalent) and a LIFE Scholarship Enhancement for a maximum of six consecutive terms (or its equivalent), as long as all other eligibility requirements are met and the program is approved by the Commission on Higher Education.

C. If a student pursues the following program, the terms of eligibility for the LIFE Scholarship will be based upon the student’s initial college enrollment:

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Degree/Program	Maximum Terms of Eligibility	Average Credit Hours Earned at the End of Each Academic Year				
		1st Year = 30 credit hours	2nd Year = 60 credit hours	3rd Year = 90 credit hours	4th Year = 120 credit hours	Fifth Year = 150 credit hours
		Terms of Remaining Eligibility at the End of Each Academic Year				
One-year Certificate/Diploma	2	0	0	0	0	0
Associate/Two-year Program	4	2	0	0	0	0
Bachelor/First Professional	8	6	4	2	0	0
Approved Five-year Bachelor	10	8	6	4	2	0

D. The maximum number of terms of eligibility for a LIFE Scholarship Enhancement is based on the student's continued eligibility for a LIFE Scholarship and beginning with the student's second year of college enrollment (based on initial date of college enrollment), with the exception of the summer term immediately prior to the student's initial college enrollment and up to one academic year of full-time enrollment in remedial/developmental coursework.

E. Students may receive a LIFE Scholarship Enhancement for a maximum of six consecutive terms (i.e., three academic years) for a first bachelor's degree in an eligible program or an eligible program of study that is structured so as not to require a bachelor's degree for acceptance into the program and leads to a graduate degree program, and eight consecutive terms (i.e., four academic years) towards an approved five-year bachelor's degree program and six consecutive terms towards a 3 plus 2 program. Students must be enrolled in an eligible four-year public or independent institution in South Carolina as a declared major in an eligible science or mathematics major or an eligible program that is approved and assigned a CIP code by the Commission on Higher Education. In cases where students are enrolled in a program of study that is structured so as not to require a bachelor's degree for acceptance into the program and leads to a graduate degree, which will be the students' first academic degree awarded, students must maintain their undergraduate status to be awarded the LIFE Scholarship and the LIFE Scholarship Enhancement, with the exception of students declaring a major in the Master's of Science in Physician Assistant Studies Program, the Master's of Science in Cytology and Biosciences Program and the Doctor of Pharmacy Program at the University of South Carolina-Columbia and the Medical University of South Carolina. Students who have already been awarded their first bachelor's degree or graduate degree are not eligible to be awarded a LIFE Scholarship or a LIFE Scholarship Enhancement. Students are eligible to receive a LIFE Scholarship for a maximum of eight consecutive terms (or its equivalent) and a LIFE Scholarship Enhancement for a maximum of six consecutive terms (or its equivalent) towards an undergraduate degree, as long as all other eligibility requirements are met and the program is approved by the Commission on Higher Education. Students enrolled in an approved five-year degree program may be eligible to receive a LIFE Scholarship for a fifth year of full-time, undergraduate work and a LIFE Scholarship Enhancement for a fourth year of full-time undergraduate coursework.

### 62-1200.25 Regaining or Earning Eligibility: LIFE Scholarship and LIFE Scholarship Enhancement

A. Students who were not initially eligible upon high school graduation or failed to meet the continued eligibility requirements may earn or regain eligibility for the LIFE Scholarship if they:

1. Meet all eligibility requirements as stated in the "Student Eligibility" Section;
2. Earn at least a 3.0 "LIFE GPA" by the end of the academic year;
3. Meet the annual credit hour requirement by the end of the academic year based on initial college enrollment:
  - (a) earn a minimum of 30 (or the equivalent) credit hours if entering the second year; or

- (b) earn a minimum of 60 (or the equivalent) credit hours if entering the third year; or
- (c) earn a minimum of 90 (or the equivalent) credit hours if entering the fourth year; or
- (d) earn a minimum of 120 (or its equivalent) credit hours if entering the fifth year of an approved five-year bachelor's degree program.
- (e) earn the required number of credit hours as stated in Section 62-1200.25 (C) for students who initially enroll mid-year.

B. A student who has earned a GED diploma may be eligible to earn the LIFE Scholarship at the end of the first academic year of a non-GED program. The student must meet the annual credit hour requirement (or equivalent) and a 3.0 "LIFE GPA" at the end of the first academic year. To qualify for subsequent years, the student must meet all eligibility requirements as stated in Section A above.

C. A student who has graduated from a homeschool association not approved by the state of South Carolina may be eligible to earn the LIFE Scholarship at the end of the first academic year based on initial college enrollment. The student must meet the annual credit hour requirement (or equivalent) and a 3.0 "LIFE GPA" at the end of the first academic year. The student may also qualify in subsequent years by meeting all eligibility requirements as stated in Section A above.

D. Students who initially enroll in college mid-year (spring term) may be eligible to receive the LIFE Scholarship the next academic year, if the student earns a minimum of fifteen credit hours and earns a cumulative 3.0 "LIFE GPA" at the end of the academic year. For subsequent years, the student must meet the annual credit hour requirement for renewal (refer to Section 62-1200.30 (C) for the required number of credit hours for mid-year students). The student may be eligible to receive the maximum number of terms of eligibility based on initial college enrollment.

E. Students who were not initially eligible for a LIFE Scholarship (as stated in this section) upon high school graduation or failed to meet the continued eligibility requirements for a LIFE Scholarship may earn or regain eligibility for a LIFE Scholarship Enhancement if they:

1. Meet all eligibility requirements as stipulated in Section 62-1200.10 and are recipients of a LIFE Scholarship;
2. Earn at least a 3.0 "LIFE GPA" and meet the annual credit hour requirement by the end of each academic year based on initial college enrollment to receive a LIFE Scholarship; and
3. Be a recipient of LIFE Scholarship funds at the time of LIFE Scholarship Enhancement funds disbursement.

**62-1200.30 Transfer Students: LIFE Scholarship and LIFE Scholarship Enhancement**

A. Students must meet all eligibility requirements for a LIFE Scholarship and for a LIFE Scholarship Enhancement as stipulated in Section 62-1200.10.

B. Transfer students who receive the LIFE Scholarship and transfer mid-year to another institution may be eligible to receive the Scholarship for the spring term if they met the eligibility requirements at the end of the previous academic year (See "Transfer Student" Section B for eligibility requirements):

1. Freshmen who transfer mid-year to the same type of institution (two-year to two-year or four year to four-year) must have met the Scholarship requirements of the respective institution at the time of initial college enrollment; or
2. Freshmen who transfer mid-year from a two-year to a four-year institution must meet the eligibility requirements of a first-time entering freshmen enrolling at a four-year institution; or

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3. Freshmen who transfer mid-year from a four-year to a two-year institution must meet the eligibility requirements of a first-time entering freshmen enrolling at a two-year institution.

C. For determining initial eligibility for transfer students for the first-time at an eligible public or independent institution in SC, students must meet the following requirements at the end of the previous academic year:

1. Earn a cumulative 3.0 LIFE GPA; and

2. Meet one of the following:

(a) earn a minimum of thirty credit hours (or equivalent) at all institutions if entering the second year of college based on initial college enrollment; or

(b) earn a minimum of sixty credit hours (or equivalent) at all institutions if entering the third year of college based on initial college enrollment; or

(c) earn a minimum of ninety credit hours (or equivalent) at all institutions if entering the fourth year of college based on initial college enrollment; or

(d) earn a minimum of one hundred twenty credit hours (or equivalent) at all institutions if entering the fifth year of college in an approved five-year bachelor's degree program based on initial college enrollment; or

(e) earn the required number of credit hours as stated in Section 62-900.15 (C) for students who initially enroll mid-year based on initial college enrollment.

D. For eligibility in subsequent years, transfer students must earn a 3.0 LIFE GPA and meet the annual credit hour requirement (or its equivalent) at all eligible institutions by the end of the academic year based on initial college enrollment.

E. The institution where the student is transferring will determine the classification of the entering transferring student based on initial college enrollment and will use this classification to determine the remaining terms of eligibility in compliance with the "Terms of Eligibility" Section.

F. Students transferring to an eligible public or independent four-year South Carolina institution may be eligible to receive a LIFE Scholarship Enhancement if they meet the requirements under Section 62-1200.10 and:

1. The student is a LIFE Scholarship recipient and transferring from an out-of-state institution or from an in-state four-year institution to an eligible public or independent four-year institution at the end of the academic year. The student must earn a minimum 3.0 LIFE GPA and a minimum average of 30 credit hours by the end of each academic year of enrollment (based on initial date of college enrollment) to receive a LIFE Scholarship Enhancement beginning the fall term of the second, third and/or fourth year of enrollment. Transfer students enrolled full-time in an eligible, approved five-year degree program may be eligible to receive a LIFE Scholarship Enhancement in their fifth year of college enrollment (based on initial date of college enrollment after high school graduation).

2. The student is a LIFE Scholarship recipient and transferring from an out-of-state institution or from an in-state four-year institution to an eligible public or independent four-year institution mid-year (i.e., spring term). The student may be eligible to receive a LIFE Scholarship Enhancement for the spring term of the second, third or fourth year of enrollment, if the student earned a 3.0 LIFE GPA and minimum average of 30 credit hours by the end of each academic year of enrollment (based on initial date of college enrollment). Transfer students enrolled full-time in an eligible, approved five-year degree program may be eligible to receive a LIFE Scholarship Enhancement in their fifth year of college enrollment (based on initial date of college enrollment after high school graduation).

3. The student is a LIFE Scholarship recipient and transferring from a two-year institution to an eligible public or independent four-year institution at the end of the academic year. The student must earn a 3.0 LIFE GPA and a minimum average of 30 credit hours by the end of each academic year of enrollment (based on initial date of college enrollment) to receive a LIFE Scholarship Enhancement beginning the fall term of the second, third and/or fourth year of enrollment. Transfer students enrolled full-time in an eligible, approved five-year degree program may be eligible to receive a LIFE Scholarship Enhancement in their fifth year of college enrollment (based on initial date of college enrollment after high school graduation).

4. The student is a LIFE Scholarship recipient and transferring from a two-year institution to an eligible public or independent four-year institution mid-year (i.e., spring term). The student may be eligible to receive a LIFE Scholarship Enhancement for the spring term of the second, third or fourth year of enrollment, if the student earned a 3.0 LIFE GPA and a minimum average of 30 credit hours by the end of each academic year of enrollment (based on initial date of college enrollment). Transfer students enrolled full-time in an eligible, approved five-year degree program may be eligible to receive a LIFE Scholarship Enhancement in their fifth year of college enrollment (based on initial date of college enrollment after high school graduation).

#### 62-1200.35 Students with Disabilities: LIFE Scholarship and LIFE Scholarship Enhancement

A. Students who qualify under the Americans with Disabilities Act (ADA) and Section 504 of the Rehabilitation Act of 1973 must meet all eligibility requirements as defined in “Student Eligibility, Continued Eligibility, Regaining or Earning Eligibility, or Transfer Students” Sections except for the full-time enrollment requirement, if approved by the Disability Services Provider at the home institution. Students must comply with all institutional policies and procedures in accordance with ADA and Section 504 of the Rehabilitation Act of 1973. It is the responsibility of the transfer student to provide written documentation concerning services from the previous institutional Disability Services Provider.

B. The institutional Disability Services Provider must provide written documentation to the Office of Financial Aid prior to each academic year verifying that the student is approved to be enrolled in less than full-time status or earn less than the required annual credit hours. The institution is responsible for retaining appropriate documentation according to the “Program Administration and Audits” Section.

C. For renewal, students who qualify under ADA and Section 504 of the Rehabilitation Act of 1973 must meet all requirements as stated in the “Continued Eligibility” Section, except that if a student does not meet the annual credit hour requirement, the student must have been approved by the institutional Disability Services Provider in the prior academic year to be enrolled in less than “full-time” status or less than the required thirty credit hours. Each academic year, students must complete the required number of credit hours approved by the institutional Disability Services Provider for LIFE Scholarship and LIFE Scholarship Enhancement renewal and earn a 3.0 “LIFE GPA.” Students must comply with all institutional policies and procedures in accordance with ADA and Section 504 of the Rehabilitation Act of 1973.

D. Students who qualify under ADA and Section 504 of the Rehabilitation Act of 1973 may receive the maximum number of terms of eligibility as stated in the “Terms of Eligibility” Section.

E. In order to be eligible for the LIFE Scholarship and LIFE Scholarship Enhancement, students who no longer qualify under ADA and Section 504 of the Rehabilitation Act of 1973 must comply with all requirements set forth under the “Student Eligibility, Continued Eligibility, Regaining or Earning Eligibility, or Transfer Students” Sections.

#### 62-1200.40 Enrollment in Internships, Cooperative Work Programs, Travel Study Programs and National and International Student Exchange Programs: LIFE Scholarship and LIFE Scholarship Enhancement

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A. Students enrolled in internships, cooperative work programs, travel study programs, or National or International Student Exchange Programs that are approved by the home institution and that the home institution accepts as full-time transfer credit are eligible to receive LIFE Scholarship and LIFE Scholarship Enhancement funds during the period in which the student is enrolled in such programs. Students will be required to meet the continued eligibility requirements.

B. Eligible students may use the appropriated portion of LIFE Scholarship and LIFE Scholarship Enhancement funds for internships, cooperative work programs, travel study programs or National or International Student Exchange Programs that are approved by the home institution and that the home institution accepts as full-time transfer credit. LIFE Scholarship and LIFE Scholarship Enhancement funds must be paid directly to the student's account at the home institution and cannot exceed the cost-of-attendance at the home institution or the cost-of-attendance at the host institution, whichever is less. The Commission on Higher Education will not transfer LIFE Scholarship or LIFE Scholarship Enhancement funds directly to the institution where the student will participate in internships, cooperative work programs, travel study programs or National or International Student Exchange Programs. The institution is responsible for LIFE Scholarship and LIFE Scholarship Enhancement funds according to the "Policies and Procedures for Awarding" Section.

C. Students who enroll in one academic term at the home institution and also enroll in an internship, cooperative work program, travel study program or National or International Student Exchange Program that are approved by the home institution and that do not award full-time transfer credit during the same academic year, must complete fifteen credit hours and earn a 3.0 "LIFE GPA" by the end of the academic year to be eligible for LIFE Scholarship and LIFE Scholarship Enhancement renewal for the next academic year. Students who did not use the entire eligibility for LIFE Scholarship and LIFE Scholarship Enhancement funds during this period shall be allowed to receive LIFE Scholarship and LIFE Scholarship Enhancement funds during the succeeding summer or at the end of the maximum terms of eligibility based on their initial college enrollment date (provided the student meets continued eligibility requirements).

D. For students enrolled in an internship, cooperative work program, travel study program or National or International Student Exchange Program during the entire academic year that is approved by the home institution but does not award full-time transfer credit for the entire academic year, LIFE Scholarship and LIFE Scholarship Enhancement renewal for the next academic year will be based on the prior year's eligibility. Students who did not use the entire eligibility for LIFE Scholarship and LIFE Scholarship Enhancement funds during this period shall be allowed to receive LIFE Scholarship and LIFE Scholarship Enhancement funds during the succeeding summer or at the end of the maximum terms of eligibility based on initial college enrollment (provided the student meets the continued eligibility requirements).

E. Students enrolled in an internship, a cooperative work program, a travel study program or national or international student exchange program during the academic year that is approved by the home institution and did not use the entire eligibility for LIFE Scholarship and LIFE Scholarship Enhancement funds during this period shall be allowed to receive LIFE Scholarship and LIFE Scholarship Enhancement funds during the succeeding summer or at the end of the maximum terms of eligibility based on initial college enrollment (provided the student meets the continued eligibility requirements). In order to receive LIFE Scholarship and LIFE Scholarship Enhancement funds for summer school at the home institution, students must enroll in twelve credit hours during the summer. In order to maintain eligibility for the next academic year for students who only attend summer school at the home institution, the student must earn twelve credit hours during the academic year. For students who enroll in summer school and one other term of the academic year at the home institution, the student must earn a total of twenty-seven credit hours (or its equivalent) for the academic year. The student must meet all eligibility requirements as specified in the "Student Eligibility" and "Continued Eligibility" Sections, except for the completion of the annual credit hour requirement for the academic year.

F. The home institution will be responsible for obtaining official certification of the student's grade point average, credit hours earned, and satisfactory academic progress for the purposes of determining eligibility for LIFE Scholarship and LIFE Scholarship Enhancement renewal for the next academic year.

## 62-1200.45 Military Mobilization: LIFE Scholarship and LIFE Scholarship Enhancement

A. Service members who are enrolled in college and are affected by military mobilizations will not be penalized for the term they are required to withdraw after the full refund period based on the institutional policies and procedures. Institutions are strongly encouraged to provide a full refund of required tuition, fees and other institutional charges or to provide a credit in a comparable amount against future charges for students who are forced to withdraw as a result of military mobilization. Additionally, the term(s) that the service member is mobilized will not count against the maximum terms of eligibility. The service member shall be allowed to receive the unused terms for the LIFE Scholarship and LIFE Scholarship Enhancement while mobilized during the succeeding summer or at the end of the maximum terms of eligibility based on initial college enrollment (provided the service member meets continued eligibility requirements). The service member must re-enroll in an eligible institution within twelve months upon their demobilization and provide official documentation to verify military deployment to the institutional Financial Aid Office upon re-enrollment to receive LIFE Scholarship and LIFE Scholarship Enhancement. Reinstatement of the LIFE Scholarship and the LIFE Scholarship Enhancement will be based upon the service member's eligibility at the time he/she was mobilized. If the student re-enrolls after the twelve month period, the service member must submit an Appeal Application to the Commission on Higher Education by the established deadline in order to be considered for reinstatement.

B. Service members who are enrolled in college and are mobilized for an entire academic year may renew the LIFE Scholarship and the LIFE Scholarship Enhancement for the next academic year, if they met the eligibility requirements at the end of the prior academic year. Service members who did not use the LIFE Scholarship and LIFE Scholarship Enhancement funds/terms of eligibility during this period due to military mobilization shall be allowed to receive the LIFE Scholarship and LIFE Scholarship Enhancement funds during the succeeding summer or at the end of the maximum terms of eligibility based on initial college enrollment (provided the service member meets continued eligibility requirements).

C. Service members who are enrolled in college and are mobilized for one academic term must complete fifteen credit hours and earn a 3.0 "LIFE GPA" by the end of the academic year to be eligible for LIFE Scholarship and LIFE Scholarship Enhancement renewal for the next academic year. Service members who did not use LIFE Scholarship and LIFE Scholarship Enhancement funds/terms of eligibility during this period shall be allowed to receive the LIFE Scholarship and LIFE Scholarship Enhancement during the succeeding summer or at the end of the maximum terms of eligibility based on initial college enrollment (provided the service member meets the continued eligibility requirements).

D. In order to receive the LIFE Scholarship and the LIFE Scholarship Enhancement for summer school for the unused term(s), the service member must enroll in twelve credit hours during the succeeding summer term at the home institution. For service members who enroll in summer school and one other term of the academic year, the service member must earn a total of twenty-seven credit hours (or its equivalent) for the academic year. In order to maintain eligibility for the next academic year for service members who only attend summer school, the member must earn twelve credit hours during the academic year. The service member must meet all eligibility requirements as specified in the "Student Eligibility" and "Continued Eligibility" Sections for the LIFE Scholarship and LIFE Scholarship Enhancement, except for the completion of the thirty credit hour requirement for the academic year.

E. The home institution will be responsible for receiving verification of military mobilization status, "LIFE GPA," credit hours earned and terms of eligibility based on the service member's initial college enrollment and eligibility for LIFE Scholarship and LIFE Scholarship Enhancement renewal for the next academic year.

F. Service members of the United States Armed Forces will not be penalized for any credit hours earned while on military mobilization. The credit hours earned will not count against the terms of eligibility, but will be used toward the annual credit hour requirement for the LIFE Scholarship and towards the minimum fourteen credit hour course level requirement for the LIFE Scholarship Enhancement.

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### 62-1200.50 LIFE Scholarship Refunds and Repayments

A. In the event a student who has been awarded a LIFE Scholarship and LIFE Scholarship Enhancement withdraws, is suspended from the institution, or drops below full-time enrollment status during any term of the academic year, institutions must reimburse the LIFE Scholarship Program for the amount of the LIFE Scholarship and LIFE Scholarship Enhancement for the term in question pursuant to the refund policies of the institution. Collection is the responsibility of the institution.

B. In the event a student withdraws or drops below full-time status after the institution's refund period and therefore must pay tuition and fees for full-time enrollment, the LIFE Scholarship and LIFE Scholarship Enhancement may be retained pursuant to the refund policies of the institution.

### 62-1200.55 Appeals Procedures: LIFE Scholarship and LIFE Scholarship Enhancement

A. The Commission on Higher Education shall define the appeals procedures.

B. Students who did not meet the continued eligibility requirements for the LIFE Scholarship at the end of the academic year due to an extenuating circumstance may request an appeal with the Commission on Higher Education.

C. The Commission on Higher Education will allow a student to submit only one appeal each academic year based on an extenuating circumstance.

D. A completed appeal's application must be filed with the Commission on Higher Education by the established deadline of the academic year the scholarship is requested. The student must provide a completed application for appeal, a letter requesting an appeal describing the extenuating circumstance, official transcripts from all prior institutions, and any other supporting documentation to substantiate the basis for the appeal. Failure to submit an appeal by the required deadline(s) will result in forfeiture of the scholarship.

E. The LIFE Scholarship shall be suspended during the appeal period, but will be awarded retroactively if the appeal is granted.

F. Appeal Guidelines apply only to the LIFE Scholarship, not the LIFE Scholarship Enhancement. Students cannot appeal solely on the basis of a loss of a LIFE Scholarship Enhancement. However, students who appeal and are awarded the LIFE Scholarship under this section may be eligible to receive the LIFE Scholarship Enhancement.

G. The Appeals Committee's decision is final.

### 62-1200.60 Institutional Policies and Procedures for Awarding: LIFE Scholarship and LIFE Scholarship Enhancement

A. All eligible institutions are responsible for ensuring that each student has met the criteria based on state law and regulation to determine eligibility for the LIFE Scholarship and the LIFE Scholarship Enhancement as stipulated in Section 62-1200.10 and Section 62-1200.15.

B. Each institution is responsible for reviewing all students based on the "LIFE GPA" calculation below to determine eligibility for the LIFE Scholarship. Institutions must use official transcripts from all eligible institutions for each student and the steps in Section E below.

C. The institution must use grades earned at all eligible institutions during any term (fall, spring, and/or summer) for calculating a "LIFE GPA" at the end of the academic year.



D. The student must certify by submitting a signed affidavit that he/she is responsible for submitting transcripts from all previous and current eligible institutions. Students who complete coursework at another institution at anytime during the academic year (fall, spring, summer) must submit an official transcript to the home institution at the end of the academic year to determine eligibility for the LIFE Scholarship.

E. Steps for calculating a "LIFE GPA:"

1. Convert all grades earned at an eligible institution to a 4.0 scale based on each institution's grading policy where the grades were earned = Grade Points

2. Multiply the grade points by attempted credit hours = Quality Points (QP)

3. Divide the total quality points by the total number of attempted credit hours = LIFE GPA

4. "LIFE GPA" Formula: 
$$\frac{\text{Grade Points X Attempted Credited Hours} = \text{QP}}{\text{Total Attempted Credit Hours}} = \text{LIFE GPA}$$

F. The "LIFE GPA" must include all grades earned at eligible institutions, including courses that do not transfer based on the institution's policy and college courses taken while in high school.

G. The "LIFE GPA" must not include attempted credit hours earned for continuing education courses, non-degree credit courses for an associate's degree or higher and remedial/developmental courses.

H. The student must meet the annual credit hour requirement at the end of the academic year based on initial college enrollment as defined in the "Continued Eligibility," "Regaining or Earning Eligibility" or "Transfer Students" Sections.

I. LIFE Scholarship awards are to be used only for payment toward the cost-of-attendance as established by Title IV Regulations. Eligible four-year public and independent institutions shall identify award amounts up to the cost-of-tuition for thirty credit hours, not to exceed four thousand seven hundred dollars, plus a three hundred dollar book allowance (maximum \$5,000 including cost-of-tuition plus book allowance) per academic year. Eligible two-year public or technical institutions shall identify award amounts, which cannot exceed the cost-of-tuition for thirty credit hours plus a three hundred dollar book allowance (maximum \$5,000 including cost-of-tuition plus book allowance) per academic year. For students enrolled at eligible two-year independent institutions, the award amount shall not exceed the maximum cost-of-tuition at the two-year USC regional institutions plus a three hundred dollar book allowance (not to exceed a maximum award amount of \$5,000 including cost-of-tuition plus book allowance) per academic year. Half shall be awarded during the fall term and half during the spring term (or its equivalent), assuming continued eligibility. The LIFE Scholarship in combination with all other gift aid, including Federal, State, private and institutional funds, shall not exceed the cost-of-attendance as defined in Title IV regulations for any academic year.

J. The LIFE Scholarship Enhancement is an annual award. Half of the funds are to be disbursed in the fall term and half to be disbursed in the spring term. Students who change their major from an ineligible degree program to an eligible degree program during the same academic year shall not receive the LIFE Scholarship Enhancement until the beginning of the next academic year (i.e., fall term). Students who change their major from an eligible degree program to an ineligible degree program during the same academic year may continue to receive the LIFE Scholarship Enhancement during the current academic year; however, the student cannot be awarded the LIFE Scholarship Enhancement the next academic year of enrollment in an ineligible degree program.

K. The institution shall specify exact LIFE Scholarship Enhancement amounts to be used only for payment toward the cost-of-attendance as established by Title IV Regulations at eligible four-year public and independent institutions in South Carolina. The annual LIFE Scholarship Enhancement award amount shall not

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exceed \$2,500.00 per academic year for no more than three years of instruction if enrolled in an eligible four-year degree program or for not more than four years of instruction if enrolled in an eligible approved five-year degree program. Students enrolled in an eligible 3 plus 2 program shall receive a LIFE Scholarship for no more than four years of instruction and a LIFE Scholarship Enhancement for no more than three years of instruction. Half of the LIFE Scholarship Enhancement funds shall be awarded in the fall term and half during the spring term (or its equivalent), assuming continued eligibility. The LIFE Scholarship Enhancement in combination with all other gift aid, including Federal, State, private and institutional funds, shall not exceed the cost-of-attendance as defined in Title IV Regulations for any academic year.

L. In determining the amount awarded for the LIFE Scholarship Enhancement, all other sources of gift aid, including federal, State, private and institutional funds and the base LIFE Scholarship must be applied to the unmet total cost of attendance in accord with Title IV Regulations before calculating the LIFE Scholarship Enhancement amount and receiving the funds. Adjustments to the financial aid package will be made to the LIFE Scholarship Enhancement in accordance with prescribed Title IV Regulations in order to prevent an over award.

M. Students who have already been awarded a first bachelor's degree or graduate degree are not eligible to receive a LIFE Scholarship or a LIFE Scholarship Enhancement. Students enrolled in a program of study that is structured so as not to require a bachelor's degree and leads to a graduate degree as defined in the "Program Definitions" Section must maintain their undergraduate status in order to receive a LIFE Scholarship and a LIFE Scholarship Enhancement each academic term, with the exception of students majoring in the Master's of Science in Physician Assistant Studies Program, Master's of Science in Cytology and Biosciences Program and the Doctor of Pharmacy Program at the University of South Carolina-Columbia and the Medical University of South Carolina.

N. Eligible institutions shall provide an award notification to eligible students that contains the terms and conditions of the LIFE Scholarship and the LIFE Scholarship Enhancement. Institutions will notify students and the SC Commission on Higher Education of any adjustments in LIFE Scholarship and LIFE Scholarship Enhancement funds that may result from an over award, change in eligibility, change in the student's residency or change in financial status or other matters.

O. The institution must retain annual paper or electronic documentation for each LIFE Scholarship and LIFE Scholarship Enhancement award to include at a minimum:

1. Award notification
2. Institutional disbursement to student
3. Student's residency status
4. Refunds and repayments (if appropriate)
5. Enrollment and curriculum requirements
6. Verification of a 3.0 "LIFE GPA" and the required number of annual credit hours based on initial college enrollment
7. Affidavit documenting that the student: a) has never been convicted of any felonies and/or a second or subsequent alcohol/ drug-related misdemeanor offenses within the past academic year; b) understands that non-degree credit hours will not be used in calculating the "LIFE GPA" or credit hour requirements if they are enrolled in an associate's degree or higher; and c) must certify that they have submitted transcripts from all previous and current institutions attended
8. Institutional Student Information Record (ISIR) or affidavit documenting that the student is not in default or does not owe a refund or repayment on any state or federal financial aid
9. High school transcript(s) verifying graduation or home school completion date, grade point averages and class ranks (first-time entering freshmen) or GED or Adult Education High School Diploma,
10. SAT or ACT scores (first-time entering freshmen)
11. Verification of student's disability from Institutional Disability Service Provider and verification of reduced course-load requirement (if appropriate)

12. Military mobilization orders (if appropriate)

13. Beginning with the 2007-08 freshman class and thereafter, all institutions must retain documentation verifying that students met the minimum fourteen credit hour course level requirement by the end of the first year of college enrollment for the LIFE Scholarship Enhancement.

14. Verification from academic department of enrollment in a declared major in an eligible degree program (Palmetto Fellows Scholarship Enhancement purposes only)

15. Documentation from Registrar or Admissions office that student's final high school GPA has been calculated pursuant to a grading scale that is at least equal to the SC UGP (For students who are attempting to use a class rank from an out-of-state institution to qualify for the LIFE Scholarship).

P. It is the institution's responsibility to ensure that only eligible students receive a LIFE Scholarship and LIFE Scholarship Enhancement award.

Q. Any student who has attempted to obtain or has obtained a LIFE Scholarship and a LIFE Scholarship Enhancement award through means of a willfully false statement or failure to reveal any material fact, condition, or circumstances affecting eligibility will be subject to applicable civil or criminal penalties, including loss of the LIFE Scholarship and the LIFE Scholarship Enhancement.

#### 62-1200.65 Institutional Disbursements: LIFE Scholarship and LIFE Scholarship Enhancement

A. Eligible four-year public and independent institutions shall award LIFE Scholarship amounts, which cannot exceed the cost-of-tuition for thirty credit hours a year, not to exceed four thousand seven hundred dollars, plus a three hundred dollar book allowance (maximum \$5,000 including cost-of-tuition plus book allowance) per academic year. Eligible two-year public or technical institutions shall award LIFE Scholarship amounts, which cannot exceed the cost-of-tuition for thirty credit hours plus a three hundred dollar book allowance (not to exceed a maximum award amount of \$5,000 including cost-of-tuition plus book allowance) per academic year. For students enrolled at eligible two-year independent institutions, the award amount for a LIFE Scholarship shall not exceed the maximum cost-of-tuition at the two-year USC regional institutions plus a three hundred dollar book allowance (not to exceed a maximum award amount of \$5,000 including cost-of-tuition plus book allowance) per academic year. Half of the LIFE Scholarship shall be awarded during the fall term and half during the spring term (or its equivalent), assuming continued eligibility. LIFE Scholarship funds cannot be disbursed during the summer or any interim sessions with the exception to disbursements that meet the requisites under the "Enrollment in Internships, Cooperative Work Programs, Travel Study Programs and National and International Student Exchange Programs" or "Military Mobilization" Sections. The LIFE Scholarship in combination with all other gift aid, including Federal, State, private and institutional funds, shall not exceed the cost-of-attendance as defined in Title IV regulations for any academic year.

B. Eligible four-year public and independent institutions only shall award LIFE Scholarship Enhancement amounts, which cannot exceed the cost-of-attendance for thirty credit hours a year, not to exceed \$2,500 per academic year. The LIFE Scholarship Enhancement cannot be disbursed during the summer or any interim sessions with the exception of disbursements that meet the requisites under the "Enrollment in Internships, Cooperative Work Programs, Travel Study Programs and National and International Student Exchange Programs" or "Military Mobilization" Sections. The LIFE Scholarship Enhancement in combination with all other gift aid, including Federal, State, private and institutional funds, shall not exceed the cost-of-attendance as defined in Title IV Regulations for any academic year.

C. The LIFE Scholarship and the LIFE Scholarship Enhancement may not be applied to a second bachelor's degree or a graduate degree program as defined in the "Program Definitions" Section. In the event of early graduation, the LIFE Scholarship and LIFE Scholarship Enhancement awards are discontinued. Students are eligible to receive the LIFE Scholarship for a maximum of eight consecutive terms (or its equivalent) and a LIFE Scholarship Enhancement for a maximum of six consecutive terms (or its equivalent) towards an undergraduate degree, as long as all other eligibility requirements are met and the program is approved by the Commission on Higher Education. In such cases where students are enrolled in a program of study that is

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structured so as not to require a bachelor's degree for acceptance into the program and leads to a graduate degree, which will be the students' first academic degree awarded, such students must maintain their undergraduate status to be awarded the LIFE Scholarship and the LIFE Scholarship Enhancement, with the exception of students majoring in the Master's of Science in Physician Assistant Studies Program, the Master's of Science in Cytology and Biosciences Program and the Doctor of Pharmacy Program at the University of South Carolina-Columbia and the Medical University of South Carolina. Students who have already been awarded their first bachelor's degree or graduate degree are not eligible to be awarded a LIFE Scholarship or a LIFE Scholarship Enhancement. Students enrolled in an approved five-year degree program may be eligible to receive a LIFE Scholarship for a fifth year of full-time, undergraduate work and a LIFE Scholarship Enhancement for a fourth year of full-time undergraduate coursework.

D. In determining the amount awarded for the LIFE Scholarship Enhancement, all other sources of gift aid, including federal, State, private and institutional funds and the base LIFE Scholarship, must be applied to the unmet total cost-of-attendance in accord with Title IV Regulations before calculating the LIFE Scholarship Enhancement amount and receiving the funds. Adjustments to the financial aid package will be made to the base LIFE Scholarship and LIFE Scholarship Enhancement in accordance with prescribed Title IV Regulations in order to prevent an over award.

E. After the last day to register for each term of the academic year, the institution will verify enrollment of each recipient as a South Carolina resident who is a full-time, degree-seeking student. The institution must submit a request for LIFE Scholarship and LIFE Scholarship Enhancement funds and/or return of funds by the established deadline each term. In addition, a listing of all eligible recipients by identification numbers with award amounts for the term must be sent to the Commission on Higher Education. At this time any unused funds must be returned to the Commission on Higher Education immediately.

F. The Commission will disburse LIFE Scholarship and LIFE Scholarship Enhancement awards to the eligible institutions to be placed in each eligible student's account.

G. The student must be enrolled at the time of disbursement of LIFE Scholarship and LIFE Scholarship Enhancement funds as a full-time student at the home institution, and meet all requirements as established in the "Student Eligibility" Section for a LIFE Scholarship and the a LIFE Scholarship Enhancement. Students who are retroactively awarded must have been enrolled in a minimum of twelve credit hours (full-time) as a declared major in an eligible program under Section 62-1200.10 at the home institution at the time the LIFE Scholarship and LIFE Scholarship Enhancement would have been disbursed for that term.

H. The LIFE Scholarship and LIFE Scholarship Enhancement are to be annual awards. Half of the funds are to be disbursed in the fall term and half to be disbursed in the spring term. Students who change their major from an ineligible degree program to an eligible degree program during the same academic year shall not receive the LIFE Scholarship Enhancement until the beginning of the next academic year (i.e., fall term). Students who change their major from an eligible degree program to an ineligible degree program during the same academic year may continue to receive the LIFE Scholarship Enhancement during the current academic year; however, the student cannot be awarded the LIFE Scholarship Enhancement the next academic year of enrollment in an ineligible degree program.

### 62-1200.70 Program Administration and Audits: LIFE Scholarship and LIFE Scholarship Enhancement

A. The South Carolina Commission on Higher Education shall be responsible for the oversight of functions (e.g., guidelines, policies, rules, regulation) relative to this program with participating institutions. The Commission on Higher Education shall be responsible for the allocation of funds, promulgation of guidelines and regulation governing the LIFE Scholarship Program, any audits or other oversight as may be deemed necessary to monitor the expenditures of scholarship funds.

B. According to the Audit Policies and Procedures for Scholarship and Grant Programs Manual, all eligible institutions that participate in the program must abide by program policies, rules or regulation. Institutions also agree to maintain and provide all pertinent information, records, reports or any information as may be required or requested by the Commission on Higher Education or the General Assembly to ensure proper administration of the program.

C. The Chief Executive Officer at each participating institution shall identify to the Commission on Higher Education a LIFE Scholarship institutional representative who is responsible for the operation of the program on the campus and will serve as the contact person. The institutional representative will act as the student's fiscal agent to receive and deliver funds for use under the program.

**62-1200.75 Suspension or Termination of Institutional Participation: LIFE Scholarship and LIFE Scholarship Enhancement**

A. The Commission may review institutional administrative practices to determine institutional compliance with pertinent statutes, guidelines, rules or regulations. If such a review determines that an institution has failed to comply with Program statutes, guidelines, rules or regulations, the Commission may suspend, terminate, or place certain conditions upon the institution's continued participation in the Program and require reimbursement to the LIFE Scholarship Program for any LIFE Scholarship or LIFE Scholarship Enhancement funds lost or improperly awarded.

B. Upon receipt of evidence that an institution has failed to comply, the Commission on Higher Education shall notify the institution in writing of the nature of such allegations and conduct an audit.

C. If an audit indicates that a violation or violations may have occurred or are occurring at any eligible public or independent institution, the Commission on Higher Education shall secure immediate reimbursement from the institution in the event that any funds were expended out of compliance with the provisions of the Act, any relevant statutes, guidelines, rules, and regulations.

**Fiscal Impact Statement:**

No additional state funding is requested. The SC Commission on Higher Education estimates that no additional costs will be incurred by the State and its political subdivisions by approving the above regulations.

**Statement of Rationale:**

Pursuant to Act 115 of 2007 and subsequently amended by Act 235 in 2008, the SC Commission on Higher Education is mandated to promulgate regulation and establish procedures for administration of the LIFE Scholarship Enhancement.

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Document No. 4032  
**COMMISSION ON HIGHER EDUCATION**  
CHAPTER 62  
Statutory Authority: 1976 Code Section 59-142-20

62-450. South Carolina Need-based Grants Program

### **Synopsis:**

The Commission on Higher Education proposes to amend R. 62-475 (E) (1) (2) and R. 62-460 (A) of the South Carolina Need-based Grant Program. The proposed amendment deleted “regular” academic year. A proposed definition to change “Academic year” was made to promote consistency in the grant program regulation. In addition, the term “regular” was deleted from “academic semester” to promote consistency in the grant program regulation.

### **Instructions:**

R.69-450 is being amended and replaced in its entirety.

### **Text:**

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62-450 Purpose of the South Carolina Need-based Grants Program

Pursuant to Act 458, South Carolina Children First: Resources for Scholarships and Tuition Act of 1996, of the 1995-1996 Appropriations Bill, the Commission on Higher Education shall promulgate regulation and establish procedures to administer the South Carolina Need-based Grants Program. The purpose of the South Carolina Need-based Grants Program is to provide additional financial aid assistance to South Carolina's neediest students. The program will assist students who wish to attend public or independent colleges or universities in the State.

62-455 Allocation of Need-based Grant Funds to Public and Independent Institutions

A. Funds made available for higher education grants and scholarships under Chapter 143 of Title 59 of the 1976 Code, as amended under Act 458, South Carolina Children First: Resources for Scholarship and Tuition Act of 1996, shall be included in the annual appropriation to the Commission on Higher Education. Fifty percent of the appropriation shall be designated for the Palmetto Fellows Scholarship Program and the

remaining fifty percent shall be for the Need-based Grants Program. However, in instances where the equal division of the appropriated funds between the Palmetto Fellows Scholarship and Need-based Grants Programs exceeds the capacity to make awards in either program, the Commission on Higher Education has the authority to re-allocate the remaining funds between the two programs. The Commission on Higher Education shall award to eligible students who are attending public or independent eligible institutions as State Need-based Grant recipients as follows:

1. Of the funds allocated to public institutions, the percentage shall be equivalent to the percentage of the public institution's share of the total South Carolina resident undergraduate full-time headcount enrollment in the preceding year.

2. Of the funds allocated to independent institutions, the percentage shall be equivalent to the percentage of the independent institutions' share of the total South Carolina resident undergraduate full-time headcount enrollment in the preceding year and will be determined annually by the South Carolina Commission on Higher Education and the Tuition Grants Commission. The funds allocated for Need-based Grants shall be included in the annual appropriation to the Commission on Higher Education and transferred annually into the budget of the South Carolina Tuition Grants Commission, which will distribute these funds as Tuition Grants.

#### 62-460 Program Definitions for Administering South Carolina Need-based Grants at Public Institutions

A. "Academic year" is defined as the fall, spring and summer semesters.

B. "Associate degree program" is defined as a two-year technical or occupational program or an associate's degree program (Associate of Arts or Associate of Science) which leads to the first two years of a baccalaureate degree at a location approved by the U.S. Department of Education for participation in Federally funded financial aid programs and authorized by the Commission on Higher Education.

C. "Baccalaureate degree program" is defined as an undergraduate program of study leading to the first bachelor's degree at a location approved by the U.S. Department of Education for participation in Federally funded financial aid programs and authorized by the Commission on Higher Education.

D. "Degree-seeking student" is defined as any part-time or full-time student enrolled in an eligible program of study at an eligible institution.

E. "Eligible program" is defined as a program of study leading to: 1) the first baccalaureate degree 2) a program of study that is structured so as not to require a baccalaureate degree and leads to a graduate degree; 3) first associate's degree or two-year program that is acceptable for full credit towards a bachelor's degree; or 4) one-year program that leads to other recognized credentials (e.g., first diploma or first certificate). Study toward the first diploma or certificate may be followed by study toward the first associate's degree, which may be followed by transfer to the first baccalaureate degree or a program of study that is structured so as not to require a baccalaureate degree and leads to a graduate degree. Students who have already obtained a baccalaureate degree are not eligible for subsequent grant funds.

F. "Full-time student" shall mean a student who has matriculated into an eligible program of study, and who enrolls in a minimum of twelve credit hours during the academic semester.

G. "Independent institutions" are those institutions eligible to participate in the South Carolina Tuition Grants Program as defined in Chapter 113 of Title 59 of the 1976 Code, which stipulates that "an independent institution of higher learning means any independent eleemosynary junior or senior college in South Carolina whose major campus and headquarters are located within South Carolina and which is accredited by the Southern Association of Colleges and Schools."

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H. "Need analysis" shall mean the process of analyzing the household and financial information on the student's financial aid application and calculating the amount the family can be expected to contribute to the educational costs. For Federal Student Aid Programs, the need analysis system is defined under Title IV of the Higher Education Act of 1965.

I. "Needy student" shall mean a post-secondary student enrolled in or accepted for enrollment in a public institution who demonstrates to the institution the financial inability, either parental, familial, or personal, to bear the total cost-of-attendance for any academic semester. The determination of need shall be made in accordance with Federal need analysis formulae and provisions.

J. An "offense" shall mean a violation of any law or rule in any state or Federal criminal justice system.

K. "One-year program" is defined as an undergraduate program of study leading to other recognized educational credentials (e.g., certificates or diplomas that prepare students for gainful employment in a recognized occupation) at a location approved by the U.S. Department of Education for participation in Federally funded financial aid programs and is authorized by either the Commission on Higher Education or the State Board for Technical and Comprehensive Education.

L. "Part-time student" shall mean a student who has matriculated into an eligible program of study, and who enrolls in a minimum of six credit hours and a maximum of eleven credit hours during the academic semester.

M. "Program of study that is structured so as not to require a baccalaureate degree" is a program of study that is structured so as not to require a baccalaureate degree for acceptance into the program and leads to a graduate degree, which will be the student's first academic degree awarded, at a location approved by the U.S. Department of Education for participation in Federally funded financial aid programs. Students are eligible to receive the grant for a maximum of eight full-time equivalent semesters as long as all other eligibility criteria are met. Students who have been awarded a baccalaureate or graduate degree are not eligible for grant funding.

N. "Public institutions" are those institutions as defined in Chapter 103 of Title 59 of the 1976 Code, which stipulates that: "1) 'public higher education' shall mean state-supported education in the post-secondary field, including comprehensive and technical education; 2) 'public institution of higher learning' shall mean any state-supported post-secondary educational institution and shall include technical and comprehensive educational institutions."

O. "Remedial coursework" shall mean sub-collegiate level preparatory courses in English, mathematics, and reading offered at the State's technical colleges.

P. "Satisfactory academic progress" shall mean the minimum academic standard for academic progress established by the public institution for the purpose of complying with Title IV regulations for Federal Student Aid Programs.

Q. "South Carolina resident" shall be defined as an individual who satisfies the requirements of residency in accordance with the State of South Carolina Statute for Tuition and Fees, Statute 59-112-10.

### 62-465 Student Eligibility

A. To be eligible for a Need-based Grant each academic year, the student must:

1. Be a "needy student" following the financial need analysis as established under Title IV Regulations for determining eligibility for Federal Student Aid. The student must file the Free Application for Federal Student Aid (FAFSA) Form;



2. Be a U.S. citizen or a permanent resident that meets the definition of an eligible non-citizen under State Residency Statute;

3. Be a resident of the state of South Carolina for twelve consecutive months as defined in Chapter 112 of Title 59 of the 1976 Code of Laws governing the determination of residency for tuition and fee purposes;

4. Be enrolled or accepted for enrollment as a part-time or full-time degree-seeking student in an eligible program of study at an eligible public institution in South Carolina. A student enrolled in less than six credit hours during one semester may not receive a Need-based Grant for the semester in question but is eligible for reapplication for a grant upon return to part-time or full-time status;

5. Be enrolled and attending or have completed at the time of the grant disbursement in a minimum of six credit hours if part-time for the semester or twelve credit hours if full-time for the semester;

6. Certify that he/she has not been adjudicated delinquent or been convicted or pled guilty or nolo contendere to any felonies or any second or subsequent alcohol or drug-related offenses under the laws of this or any other state or under the laws of the United States in order to be eligible for a South Carolina Need-based Grant, except that a high school or college student otherwise qualified who has been adjudicated delinquent or has been convicted or pled guilty or nolo contendere to a second or subsequent alcohol or drug-related misdemeanor offense nevertheless shall be eligible or continue to be eligible for such grants after the expiration of one academic year from the date of the adjudication, conviction, or plea; and be eligible for the need-based grants for a maximum of four academic years of two semesters by submitting a signed affidavit each academic year to the institution. However, a high school or college student who has been adjudicated delinquent, convicted, or pled guilty or nolo contendere of a second or subsequent alcohol/drug related misdemeanor offense is ineligible for the next academic year of enrollment at an eligible institution after the date of the adjudication, conviction or plea. If the adjudication, conviction, or plea occurs during the academic year after the student has already submitted a signed affidavit to the institution, the student will be eligible to receive the Need-based Grant the remainder of the academic year. However, the student will be ineligible for the Need-based Grant the following entire academic year of enrollment. If a student completes a pretrail intervention program and has his/her record expunged the conviction will not affect grant eligibility; and

7. Verify that he/she does not owe a refund or repayment on a State Grant, a Pell Grant, or a Supplemental Educational Opportunity Grant and is not in default on a loan under the Federal Perkins Loan or Federal Stafford Loan Programs; and

8. Must reapply for the Need-based Grant each academic year and meet all eligibility requirements annually.

B. Students enrolled part-time or full-time may not receive a Need-based Grant for more than a maximum of eight full-time equivalent semesters. Students may only receive Need-based Grant funding for up to two semesters of the academic year. Students who have already been awarded their first baccalaureate degree are not eligible to receive a Need-based Grant.

C. Students enrolled in an eligible program of study as stated in the "Program Definitions" Section may include remedial courses as part of the minimum number of required credit hours for part-time or full-time status, as long as such courses carry credit hours and meet Title IV limitations on remedial coursework.

D. Any false information provided by the student or any attempt to obtain or expend any Need-based Grant for unlawful purposes or any purpose other than in payment or reimbursement for the cost-of-attendance at the institution authorized to award the grant will be cause for immediate cancellation of the Need-based Grant. Any student who has obtained a Need-based Grant through means of a willfully false statement or failure to reveal any material fact, condition, or circumstances affecting eligibility will be subject to applicable civil or criminal penalties, including loss of the Need-based Grant.

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### 62-470 Policies and Procedures for Awarding Need-based Grants

A. The Need-based Grants Program for the public institutions will be campus-administered. Grant funds will supplement the student financial aid awards administered by the participating public colleges and universities.

B. The participating institution will make awards in amounts to be defined in accordance with the Need-based Grants Program regulation and criteria, but not to exceed \$1,250 per eligible part-time student and \$2,500 per eligible full-time student per academic year, based on the institution's allocated funds for Need-based Grants and other financial aid awarded to individual applicants. However, the Commission, due to inflation increases or other relevant factors, may periodically adjust the maximum award for the Need-based Grants Program. A maximum of fifty percent of the grant shall be disbursed for two terms of the academic year, assuming continued eligibility.

C. Need-based Grants are to be used only towards payment for the cost-of-attendance as defined by Title IV Regulations as modified by D below for the academic year for which the award is made at the designated institution. The maximum amount awarded shall not exceed the cost-of-attendance as defined in Title IV Regulations for any year.

D. Charges for room and board are to be limited as follows:

1. Room charges shall not exceed the average cost of on-campus residential housing; and
2. Board charges shall not exceed the cost of the least expensive on-campus meal plan, which includes 21 meals per week.

E. In determining the amount awarded for the Need-based Grant, all other sources of gift aid, including Federal, State, private and institutional funds, must be applied to the total cost-of-attendance in accordance with Title IV Regulations before calculating the unmet need and awarding the grant. The Need-based Grant shall be awarded only after all other sources of gift aid have been exhausted. Adjustments to the financial aid package will be made to the Need-based Grant in accordance with prescribed Title IV Regulations in order to prevent an over-award.

F. Institutions must give first priority and award the maximum allowable Need-based Grant (\$2,500 if full-time or \$1,250 if part-time) to students who are in the custody of the South Carolina Department of Social Services (DSS). However, institutions should not award the maximum amount if, by doing so, this causes the student to exceed the unmet need according to Title IV Regulations. Students who may be eligible under this provision are responsible for contacting the institution and providing official verification to the institution that he/she is in custody of DSS. Acceptable verification shall include a letter from DSS.

G. Participating institutions will notify students of their Need-based Grant along with the terms and conditions of the award.

H. Annual allocations of funds to the public institutions will be based on each institution's percentage of the State's total enrollment of South Carolina resident undergraduate full-time degree-seeking headcount enrollment. The percentage will be based on the previous year's total as determined by the Commission on Higher Education. Unused funds, which cannot be awarded by an institution, must be returned to the Commission on Higher Education, which may redirect the funds to institutions where unmet need exists.

I. The institution must retain annual paper or electronic documentation for each award to include at a minimum:

1. Need analysis
2. Affidavit documenting that the student has never been convicted of any felonies or any second or subsequent alcohol or drug related misdemeanor offenses as stated under "Student Eligibility" and "Duration of Award and Continued Eligibility" Sections
3. Award notification
4. Institutional disbursement to student
5. Refund or repayment (if appropriate)
6. Satisfactory academic progress
7. Student's residency status
8. Enrollment and curriculum requirements
9. Student's disability (if appropriate)
10. Student is in custody of DSS (if appropriate)
11. Student award based upon approval of institutional appeal (if appropriate).

J. It is the institution's responsibility to ensure that only eligible students receive a Need-based Grant.

#### 62-475 Duration of Award and Continued Eligibility

A. Need-based Grants shall be awarded for up to two terms each academic year. The institution shall adjust the amount of the grant award during the academic year in the event of a change in the student's eligibility.

B. Need-based Grants may be awarded annually for no more than a total of eight full-time equivalent semesters of part-time or full-time study and only for up to two terms of each academic year. Award decisions will be made annually and are not automatically guaranteed. Students who have already been awarded their first baccalaureate degree are not eligible to receive a Need-based Grant.

C. Students must reapply each academic year for a Need-based Grant in accord with these guidelines and other pertinent statutes and regulations and with application timeliness and procedures stipulated by the participating institution. Students applying for a Need-based Grant must complete a FAFSA Form and be a needy student. The student must also complete any supplemental forms that may be required by the institution.

D. The institution shall be responsible for securing institutional certification of each recipient's cumulative grade point average, credit hours attempted and earned, and satisfactory academic progress for purposes of determining eligibility for award renewal.

E. For continued eligibility, the student is required to:

1. For graduation purposes, earn at least 24 credit hours each academic year if awarded a Need-based Grant as a full-time student or earn at least twelve credit hours if awarded a Need-based Grant as a part-time student. If a student is awarded a Need-based Grant for one semester of the academic year as a part-time student and the other semester as a full-time student, the student must earn at least eighteen credit hours each academic year. If a full-time student is awarded a Need-based Grant for only one semester of the academic year, the student must earn at least twelve credit hours by the end of the academic year. A part-time student who is awarded a Need-based Grant for only one semester must earn at least six credit hours by the end of the academic year; and

2. Earn at least a cumulative 2.0 grade point average on a 4.0 scale for graduation purposes by the end of each academic year.

F. Students wishing to appeal any grant award decision must submit a written request to the institution's Director of Financial Aid. This request will be handled in accordance with the institution's financial aid appeal procedures. The institution's decision on appeals shall be final.

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### 62-480 Students with Disabilities

A. Students who qualify under the Americans with Disabilities Act (ADA) and Section 504 of the Rehabilitation Act of 1973 must meet all eligibility requirements as defined in “Student Eligibility” Section except for a student who is approved by the Disability Services Provider to be enrolled in less than part-time status is eligible to receive grant funding. Students must comply with all institutional policies and procedures in accordance with ADA and Section 504 of the Rehabilitation Act of 1973.

B. For renewal, students who qualify under ADA and Section 504 of the Rehabilitation Act of 1973 must meet all renewal requirements as defined in “Duration of Award and Continued Eligibility” Section except for a student not meeting the annual credit hour requirement who is approved by the Disability Services Provider to be enrolled in less than part-time status for that academic year. Students must earn the required number of hours approved by the institutional Disability Services Provider each academic year for grant renewal and earn a minimum 2.0 cumulative grade point average on a 4.0 scale by the end of the academic year. Students must comply with all institutional policies and procedures in accordance with ADA and Section 504 of the Rehabilitation Act of 1973.

C. The institutional Disability Services Provider must provide written documentation to the Office of Financial Aid each academic year verifying that the student is approved to be enrolled in less than part-time status.

D. Students who qualify under ADA and Section 504 of the Rehabilitation Act of 1973 are eligible to receive up to the maximum number of available semesters and available funds.

### 62-485 Enrollment in Internships, Cooperative Work Programs, Travel Study Programs, or National or International Student Exchange Programs

A. Students enrolled in an internship, cooperative work program, travel study program, or National or International Student Exchange Program approved by the student’s home institution, and enrolled in fewer than six credit hours, shall not be eligible to receive a Need-based Grant during the period in which the student is enrolled in such programs or courses. Students enrolled in such programs may receive a Need-based Grant for up to two terms of the academic year if determined to be eligible.

B. Students enrolled in internships, cooperative work programs, travel study programs, or National or International Student Exchange Programs that are approved by the home institution and that the home institution accepts as at least part-time transfer credit (minimum of six credit hours) are eligible to receive Need-based Grant funds during the period in which the student is enrolled in such programs. Students will be required to meet the continued eligibility requirements.

C. Eligible students may use the appropriated portion of the Need-based Grant funds for internships, cooperative work programs, travel study programs, or National or International Student Exchange Programs that are approved by the home institution and that the home institution accepts as at least part-time transfer credit (minimum of six credit hours). Need-based Grant funds must be paid directly to the student’s account at the home institution. The amount awarded cannot exceed the cost-of-attendance at the home institution or the cost-of-attendance at the host institution, whichever is less. The Commission on Higher Education will not transfer grant funds to the institutions where students will participate in internships, cooperative work programs, travel study programs, or National or International Student Exchange Programs. The institution is responsible for grant funds according to the “Program Administration and Audits” Section.

D. The home institution will be responsible for securing official certification of the student's cumulative grade point average, credit hours earned, and satisfactory academic progress for the purposes of determining eligibility for grant renewal for the next academic year.

## 62-490 Institutional Disbursement of Need-based Grants

A. The participating institution will identify award amounts, which cannot exceed \$1,250 per eligible part-time student and \$2,500 per eligible full-time student per academic year. A maximum of fifty percent of the grant shall be disbursed for up to up to two terms of the academic year. The maximum amount, which may be received by a recipient for eight full-time equivalent semesters, shall be \$10,000 for students seeking their first baccalaureate degree or a program of study that is structured so as not to require a baccalaureate degree and leads to a graduate degree, \$5,000 for students seeking their first associate's degree, and \$2,500 for students seeking their first one-year certificate or diploma. Students who have obtained an associate's degree initially are eligible to apply for a Need-based Grant upon enrollment in their first baccalaureate degree or a program of study that is structured so as not to require a baccalaureate degree. Students who have obtained a recognized educational credential in a one-year program initially are eligible for application for a Need-based Grant upon enrollment in their first associate's degree, first baccalaureate degree, or a program of study that is structured so as not to require a baccalaureate degree and leads to a graduate degree.

B. A Need-based Grant may not be applied to a second baccalaureate degree or to graduate coursework, unless the graduate coursework is required as part of a program of study that is structured so as not to require a baccalaureate degree as defined in the "Program Definitions" Section.

C. The institution shall provide an award notification each academic year to Need-based Grant recipients, which will contain the terms and conditions of the grant and other financial aid awarded. Students will be notified of adjustments in financial aid due to changes in eligibility and/or over-award issues. The Commission on Higher Education, for documentation purposes, requires that each institution obtain verification of acceptance of the Need-based Grant and terms for the award.

D. After the last day to register for each semester of the academic year, the institution will verify enrollment of each recipient as a South Carolina resident that is a part-time or full-time degree-seeking student. According to the Scholarship and Grant Programs Policies and Procedures Manual, a listing of eligible recipients by social security number with the award amounts for the semester will be sent to the Commission on Higher Education with the institution's request for funds. A year-end reconciliation report will be submitted to the Commission on Higher Education prior to June 30<sup>th</sup>. Any unused funds shall be refunded to the Commission on Higher Education no later than June 30<sup>th</sup> of each fiscal year.

## 62-495 Refunds and Repayments

A. In the event a student who has been awarded a Need-based Grant withdraws, is suspended from the institution, or drops below part-time (six credit hours) or full-time (twelve credit hours) status during any semester of the academic year, institutions must reimburse the Need-based Grants Program for the amount of the grant for the semester in question pursuant to refund policies of the institution. Collection is the responsibility of the institution.

B. The institution may redistribute such funds to other eligible students in accordance with the guidelines, or if such funds cannot be redistributed within the academic year, the institution shall return the refund amount to the Commission on Higher Education for redistribution to other institutions.

C. In the event a student withdraws or drops below part-time or full-time status after the institution's refund period and therefore must pay tuition and fees for part-time or full-time enrollment, the award may be retained by the student pursuant to the refund policies of the institution.

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### 62-500 Program Administration and Audits

A. The South Carolina Commission on Higher Education will coordinate the oversight of functions (e.g., guidelines, policies, rules, regulations) relative to this program with eligible institutions. The Commission on Higher Education shall be responsible for the allocation of funds, promulgation of the regulation and rules, any audits, or other statewide oversight of the Need-based Grants Program as deemed necessary to monitor the expenditure of grant funds.

B. According to the Audit Policies and Procedures for Scholarship and Grant Programs Manual, all eligible institutions that participate in the program must abide by program policies, rules or regulations. Institutions also agree to maintain and provide all pertinent information, records, reports, or any information as may be required or requested by the Commission on Higher Education or the General Assembly to ensure proper administration of the program.

C. Participating institutions are authorized to establish additional guidelines, rules, and regulations for awarding the grants consistent with the South Carolina Need-based Grants Program Regulation contained herein.

D. The Chief Executive Officer at each participating institution shall identify to the Commission on Higher Education a Need-based Grant institutional representative who is responsible for the operation of the program on the campus and will serve as the contact person for the program. The institutional representative will act as the student fiscal agent to receive and deliver funds for use under the program.

### 62-505 Suspension or Termination of Institutional Participation

A. The Commission may review institutional administrative practices to determine institutional compliance with pertinent statutes, guidelines, rules or regulations. If such a review determines that an institution has failed to comply with program statutes, guidelines, rules or regulations, the Commission may suspend, terminate, or place certain conditions upon the institution's continued participation in the program and require reimbursement to the State Need-based Grants Program for any funds lost or improperly awarded.

B. Upon receipt of evidence that an institution has failed to comply, the Commission on Higher Education shall notify the institution in writing of the nature of such allegations and conduct an audit.

C. If an audit indicates that a violation or violations may have occurred or are occurring at any public or independent college or university, the Commission on Higher Education shall secure immediate reimbursement from the institution in the event that any funds were expended out of compliance with the provisions of the Act, any relevant statutes, guidelines, rules, and regulations.

#### **Fiscal Impact Statement:**

No additional state funding is requested. The SC Commission on Higher Education estimates that no additional costs will be incurred by the State and its political subdivisions in complying with the proposed revisions to the regulation.

#### **Statement of Rationale:**

Revisions to the S.C. Need-based Grant regulation were necessary to promote consistency in the grant program.

Document No. 4033  
**COMMISSION ON HIGHER EDUCATION**  
 CHAPTER 62  
 Statutory Authority: 1976 Code Section 59-104-20

62-300. Palmetto Fellows Scholarship and Palmetto Fellows Scholarship Enhancement

**Synopsis:**

The S.C. Commission on Higher Education proposes to amend and replace in its entirety R.62-300 of the Palmetto Fellows Scholarship Program. Revisions to the existing regulation for the Palmetto Fellows Scholarship Program are being proposed to clarify the policies and procedures for administering the Program. These changes were necessary to comply with Act 103 approved in 2007 and Acts 178 and 235 approved in 2008. These Acts affect a student's eligibility for the Palmetto Fellows Scholarship and Palmetto Fellows Scholarship Enhancement. The proposed regulation amends the language regarding alcohol or drug-related misdemeanor offenses from the first to the second or subsequent. The proposed regulation will clarify the use of class rank by students attending out-of-state preparatory schools to qualify for the Palmetto Fellows Scholarship. Finally, the proposed regulation will provide the criteria for students to be eligible for the Palmetto Fellows Scholarship Enhancement.

**Instructions:**

R.62-300 is being amended and replaced in its entirety.

**Text:**

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62-300 Purpose of the Palmetto Fellows Scholarship and Scholarship Enhancement

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A. Pursuant to Act 458 and amended by Act 95 and Act 162 in 2005, the Commission on Higher Education shall promulgate regulation and establish procedures to administer the Palmetto Fellows Scholarship Program. The General Assembly established the Palmetto Fellows Scholarship Program to foster scholarship among the State's postsecondary students and retain outstanding South Carolina high school graduates in the State through awards based on scholarship and achievement. The purpose of the Palmetto Fellows Scholarship Program is to recognize the most academically talented high school seniors in South Carolina and to encourage them to attend eligible colleges or universities in the State. A secondary purpose is to help retain talented minority students who might otherwise pursue studies outside the State.

B. Pursuant to Act 115 and amended by Act 235 in 2008, the Commission on Higher Education shall promulgate regulation and establish procedures for administration of the Palmetto Fellows Scholarship Enhancement. The General Assembly established the Palmetto Fellows Scholarship Enhancement in order to foster scholarship among the State's postsecondary students through awards based on scholarship and achievement. The purpose of the Palmetto Fellows Scholarship Enhancement Program is to recognize the most academically talented college students throughout the state of South Carolina in the areas of mathematics and science and encourage them to attend eligible colleges or universities in the State. In order to receive a Palmetto Fellows Scholarship Enhancement, all students must qualify for a Palmetto Fellows Scholarship as stipulated herein.

### 62-305 Allocation of Program Funds

A. Funds made available for higher education grants and scholarships under Chapter 143 of Title 59 of the 1976 Code, as amended under Act 458, South Carolina Children First: Resources for Scholarship and Tuition Act of 1996, shall be included in the annual appropriation to the Commission on Higher Education. Fifty percent of the appropriation shall be designated for the Palmetto Fellows Scholarship Program and the remaining fifty percent shall be for the Need-based Grants Program. However, in instances where the equal division of the appropriated funds between the Palmetto Fellows Scholarship and Need-based Grants Programs exceeds the capacity to make awards in either program, the Commission on Higher Education has the authority to re-allocate the remaining funds between the two programs. The Commission on Higher Education shall award to eligible students attending eligible independent or public institutions as Palmetto Fellows Scholarships as follows:

1. Of the funds allocated to public institutions, the percentage shall be equivalent to the percentage of the public institution's share of the total South Carolina resident undergraduate full-time headcount enrollment in the preceding year.

2. Of the funds allocated to independent institutions, the percentage shall be equivalent to the percentage of the independent institutions' share of the total South Carolina resident undergraduate full-time headcount enrollment in the preceding year and will be determined annually by the South Carolina Commission on Higher Education and the Tuition Grants Commission.

B. Under the South Carolina Education Lottery Act, a designated amount shall be allocated for Palmetto Fellows Scholarships and shall be included in the annual appropriation to the Commission on Higher Education.

C. After expending funds appropriated for Palmetto Fellows Scholarships from all other sources, there is automatically appropriated from the general fund of the State whatever amount is necessary to provide Palmetto Fellows Scholarships to all students meeting the requirements of Section 59-104-20.

D. The Palmetto Fellows Scholarship Enhancement is contingent upon the availability of funds appropriated by the General Assembly each academic year.

### 62-310 Definitions



A. “Academic year” is defined as the twelve-month period of time during which a full-time student is expected to earn thirty credit hours. The period of time used to measure the academic year consists of the fall, spring and immediately succeeding summer terms.

B. “Annual credit hour requirement” is defined for the Palmetto Fellows Scholarship as a minimum of thirty (30) credit hours taken and earned at the end of each academic year based on the date of initial college enrollment. Credit hours cannot include remedial, continuing education, exempted credit hours (such as AP, CLEP, IB, etc.), credit hours earned before high school graduation (dual enrollment) and credit hours earned the summer term immediately following high school graduation.

C. “Approved five-year bachelor’s degree program” is defined as a five-year bachelor’s program that is defined and approved by the Commission on Higher Education to receive the Palmetto Fellows Scholarship for a maximum of ten terms and the Scholarship Enhancement for a maximum of eight terms at the same eligible independent or public institution in order to complete the requirements for a bachelor’s degree. An approved five-year bachelor’s degree program does not include institutional and cooperative “3 plus 2” programs.

D. “Bachelor’s degree program” is defined as an undergraduate program of study leading to the first bachelor’s degree as defined by the U.S. Department of Education.

E. “CIP (Classification of Instructional Program) Code” is defined as the U.S. Department of Education’s standard for federal surveys and state reporting for institutional data (majors, minors, options and courses). For the purpose of receiving the Palmetto Fellows Scholarship Enhancement, CIP Codes have been approved by the Commission on Higher Education for eligible degree programs in the fields of mathematics and science.

F. “Continuing education coursework” is defined as postsecondary courses designed for personal development and that cannot be used as credit toward a degree.

G. “Cost-of-attendance” is defined by Title IV regulations and may include tuition, fees, books, room and board, and other expenses related to transportation, disability or dependent care.

H. “Cumulative grade point average (GPA)” is defined as the cumulative institutional GPA used for graduation purposes, which includes dividing the total number of quality points earned in all courses by the total credit hours in all courses attempted at the student’s home institution. The cumulative GPA must be at least a 3.0 at the home institution for graduation purposes at the end of each academic year based on the date of initial college enrollment.

I. “Date of initial college enrollment” is defined as the first time a student matriculates into a postsecondary degree-granting institution after high school graduation or completion of an approved home school program, excluding the summer term immediately prior to the student’s enrollment in the first regular academic year. Students must remain continuously enrolled as any break in enrollment (excluding summer) will count toward the student’s terms of eligibility.

J. For the purposes of the Scholarship Enhancement, “declared major” is defined as an eligible degree program in which a student is enrolled as a full-time, degree-seeking student. The student must meet all requirements as stipulated by the policies established by the institution and the academic department the student is enrolled in a declared major in an eligible degree program. Students cannot take courses related to a specific program without meeting institutional and departmental policies and be considered enrolled in a declared major. Students must be enrolled in a declared major in an eligible degree program that is approved and assigned a CIP code by the Commission. Eligible degree programs are those listed as such on the Commission’s Web site. Students who change their declared major from an ineligible degree program to an eligible degree program within the same academic year shall not receive the Palmetto Fellows Scholarship Enhancement for

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that academic year. Additionally, students who change their declared major from an eligible degree program to an ineligible degree program within the same academic year will not lose eligibility until the next academic year.

K. "Degree-seeking student" is defined as a student enrolled full-time in a program of study that leads to the first bachelor's degree, first approved five-year bachelor's degree or a program of study that is structured so as not to require a bachelor's degree at an eligible independent or public institution. Students must maintain their undergraduate status in order to receive the Palmetto Fellows Scholarship and the Scholarship Enhancement each academic year, with the exception of students enrolled in the following programs: 1) Master of Science in Physician Assistant Studies at the Medical University of South Carolina; 2) Master of Science in Cytology and Biosciences at the Medical University of South Carolina; and, 3) Doctor of Pharmacy at the Medical University of South Carolina and the University of South Carolina (S.C. College of Pharmacy).

L. "Eligible degree program" is defined for the purposes of the Palmetto Fellows Scholarship Enhancement as a degree program in mathematics or science as approved by the SC Commission on Higher Education. These programs include science or mathematics disciplines, computer science or informational technology, engineering, health care and health care related disciplines (including nursing, pre-medicine and pre-dentistry) as defined by the Commission on Higher Education. Enrollment in a minor does not meet the requirements of an eligible degree program for the Palmetto Fellows Scholarship Enhancement. Students must be enrolled in a declared major in an eligible degree program that is approved and assigned a CIP Code by the Commission. Eligible degree programs are those listed as such on the Commission's Web site.

M. "Eligible high school" is defined as a public or private high school located within South Carolina, an approved home school program as defined in relevant State Statute (Sections 59-65-40, 45, and 47) or a preparatory high school located outside of the State while the student is a dependent of a legal resident of South Carolina who has custody or pays child support and college expenses of the dependent high school student in accordance with Section 59-112-10. A "preparatory high school" (out-of-state) is defined as a public or private school recognized by the state in which the school is located to offer curricula through the twelfth grade and prepares students for college entrance.

N. "Felonies" are defined as crimes classified under State statute (Section 16-1-10) for which the punishment in federal or state law and typically requires imprisonment for more than one year.

O. "Fifth year" is defined as the ninth or tenth consecutive term of undergraduate coursework in an approved five-year bachelor's program. The fifth year is based on the student's date of initial college enrollment after graduation from high school.

P. "First/freshman year" is defined as the first or second consecutive term of undergraduate coursework following high school graduation.

Q. "For graduation purposes" is defined as any grade or credit hour that the home institution requires in accordance with their policies and procedures for graduation of the student, including electives and additional coursework.

R. "Fourth year" is defined as the seventh or eighth consecutive term of undergraduate coursework. The fourth year is based on the student's date of initial college enrollment after graduation from high school.

S. "Full-time student" shall mean a student who has matriculated into a program of study leading to the first bachelor's degree, first approved five-year bachelor's degree or a program of study that is structured so as not to require a bachelor's degree and leads to a graduate degree and who enrolls full-time, usually fifteen credit

hours for the fall and fifteen credit hours for the spring term. In order for the student to be eligible for Scholarship disbursement, the student must be enrolled full-time at the home institution as stipulated by Title IV Regulations, except that credit hours may not include remedial coursework or continuing education coursework.

T. "Gift aid" is defined as scholarships and grants that do not nor will not under any circumstance require repayment, and excludes any self-help aid such as student loans and work-study.

U. "Home institution" is defined as the independent or public institution where the student is currently enrolled as a full-time, degree-seeking student and may be eligible for financial aid at the same institution.

V. "Independent institutions" are defined, for the purposes of the Palmetto Fellows Scholarship and the Palmetto Fellows Scholarship Enhancement Programs, as those four-year institutions eligible to participate in the South Carolina Tuition Grants Program as defined in Chapter 113 of Title 59 of the 1976 Code, which stipulates that an "independent institution of higher learning means any independent eleemosynary junior or senior college in South Carolina whose major campus and headquarters are located within South Carolina and which is accredited by the Southern Association of Colleges and Schools; or an independent bachelor's level institution which was incorporated in its original charter in 1962, was granted a license to operate in 1997 by the Commission on Higher Education, has continued to maintain a campus in South Carolina, and is accredited by the Southern Association of Colleges and Schools. Institutions whose sole purpose is religious or theological training or the granting of professional degrees do not meet the definition of 'public or independent institutions' for purpose of this charter". Two-year independent institutions are not eligible to participate in the Palmetto Fellows Scholarship Program.

W. "Ineligible degree program" is defined for the purposes of the Palmetto Fellows Scholarship Enhancement as any degree program that is not on the Commission's posted list of eligible degree programs.

X. "Military mobilization" is defined as a situation in which the U.S. Department of Defense orders service members to active duty away from their normal duty assignment during a time of war or national emergency. Service members include: 1) active duty and reserve members in the Army, Navy, Air Force, Marine Corps and Coast Guard, and; 2) members of the Army and Air National Guard.

Y. "Misdemeanor offenses" are defined as crimes classified under State statute (Section 16-1-100), less serious than felonies, and are typically punishable by fine or imprisonment for less than one year. A complete listing is located under Title 16 of State statute. Examples of alcohol and/or drug-related misdemeanor offenses in South Carolina include, but are not limited to, possession of alcohol while under the age of 21, possession of marijuana/illegal drugs, open container, transfer of alcohol to persons under 21, providing false information as to age (fake identification), etc.

Z. "Multi-handicapped student" shall be defined as a student who, in addition to being visually or hearing impaired, has at least one additional disabling condition that qualifies the student to receive specialized postsecondary education.

AA. "Palmetto Fellow" is defined as a student awarded the Palmetto Fellows Scholarship during his/her senior year of high school and continues to meet all eligibility requirements to receive the Palmetto Fellows Scholarship. A Palmetto Fellow who is not awarded any Palmetto Fellows Scholarship funds due to the cost of attendance being met by other sources of financial aid will still be classified as a Palmetto Fellow.

BB. "Program of study that is structured so as not to require a bachelor's" shall be defined as a program of study that is structured so as not to require a bachelor's degree for acceptance into the program and leads to a graduate degree, which will be the student's first academic degree awarded, as defined by the U.S. Department of Education. Students are eligible for a maximum of eight terms as long as all other eligibility criteria are met and the program is approved by the Commission on Higher Education. Students must maintain their

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undergraduate status each academic term, with the exception of students enrolled in the following programs: 1) Master of Science in Physician Assistant Studies at the Medical University of South Carolina; 2) Master of Science in Cytology and Biosciences; and, 3) Doctor of Pharmacy at the University of South Carolina and the Medical University of South Carolina (S.C. College of Pharmacy). Students who have been awarded a bachelor's or graduate degree are not eligible for funding.

CC. "Public institutions" are defined, for the purposes of the Palmetto Fellows Scholarship and the Palmetto Fellows Scholarship Enhancement Programs, as those four-year bachelor's degree-granting institutions as defined in Chapter 103 of Title 59 of the 1976 Code, which stipulates "public higher education shall mean state-supported education in the postsecondary field." Public two-year institutions and technical colleges are not eligible for participation in this Program.

DD. "Reapplication student" is defined as a student who applied for and was offered the Palmetto Fellows Scholarship as a senior in high school, but declined the award to attend an out-of-state, four-year institution the fall term immediately following high school graduation.

EE. "Remedial coursework" shall be defined as sub-collegiate level preparatory courses in English, mathematics, reading or any other course deemed remedial by the institution where the course is taken.

FF. "Second year" is defined as the third or fourth consecutive term of full-time, undergraduate coursework. The second year is based on the student's date of initial college enrollment after graduation from high school.

GG. "South Carolina resident" is defined as an individual who satisfies the requirements of residency in accordance with the state of South Carolina's Statute for Tuition and Fees, Section 59-112-10, and all related guidelines and regulations promulgated by the Commission on Higher Education as determined by the institutional residency officer each academic year.

HH. "Satisfactory academic progress in a declared major" is defined for the purposes of the Scholarship Enhancement as the progress required by the institution and academic department in which the student is enrolled as a full-time, degree-seeking student. Students must meet all requirements for satisfactory academic progress toward degree completion in their declared major as established by the policies of both the institution and the declared major in which the student is enrolled to meet the requirements of satisfactory academic progress.

II. "Substantially deviates" shall be defined, for the purposes of reviewing out-of-state preparatory high school grading scales, as being less than equivalent to the 2007 Uniform Grading Policy.

JJ. "Transfer student" is defined, for the purposes of the Program, as a student who has changed full-time enrollment from one eligible independent or public institution to another eligible independent or public institution.

KK. "Transient student" is defined as a student enrolled in a non-matriculated status, which means he/she is granted temporary admission to earn credit hours that will transfer back to his/her home institution toward a degree. A transient student is not eligible to receive the Palmetto Fellows Scholarship or the Scholarship Enhancement unless the student is participating in a program that is both approved and accepted as full-time transfer credit by the home institution.

LL. "Third year" is defined as the fifth or sixth consecutive term of undergraduate coursework. The third year is based on the student's date of initial college enrollment after graduation from high school.

### 62-315 Initial Eligibility for Palmetto Fellows Scholarship

A. In order to qualify for consideration for a Palmetto Fellows Scholarship, a student must:

1. Meet the eligibility criteria stipulated under the “Palmetto Fellows Scholarship Application” Section;
  2. Be enrolled as a senior in an eligible high school;
  3. Be classified as a South Carolina resident at the time of college enrollment;
  4. Be a U.S. citizen or a lawful permanent resident as defined by the U.S. Citizenship and Immigration Services and the State Residency Regulation as promulgated by the Commission on Higher Education;
  5. Be seriously considering attending, have applied, or have been accepted for admission to an eligible four-year bachelor’s degree-granting independent or public institution in South Carolina as a first-time, full-time, degree-seeking student; and
  6. Certify that he/she has never been adjudicated delinquent, convicted or pled guilty or *nolo contendere* to any felonies and any second or subsequent alcohol, or drug related offenses under the laws of this or any other state or under the laws of the United States by submitting a signed affidavit each academic year to the home institution testifying to the fact, except that a high school or college student who has been adjudicated delinquent, convicted, or pled guilty or *nolo contendere* of a second or subsequent alcohol or drug related misdemeanor offense is only ineligible the next academic year of enrollment in an eligible independent or public institution after the date of the adjudication, conviction or plea. If the adjudication, conviction, or plea occurs during the academic year after the student has already submitted a signed affidavit to the home institution, the student will continue to be eligible for the remainder of that academic year. However, the student will be ineligible the following academic year of enrollment. If a student completes a pretrial intervention program and subsequently has his/her record expunged, the conviction will not affect the student’s eligibility;
  7. Submit the official Palmetto Fellows Scholarship Application by the established deadline(s) and comply with all the directions contained therein.
- B. The high schools shall ensure that all students meeting the eligibility criteria are given the opportunity to be included in the applicant pool.
- C. A student who graduates immediately after the high school sophomore year is eligible to apply for the Palmetto Fellows Scholarship, providing that the student meets all eligibility requirements as described in the “Initial Eligibility” Section and providing that the student is entering an eligible independent or public institution no later than the fall term immediately following high school graduation.
- D. A student who graduates in December/January of the high school senior year (considered an early graduate) is eligible to apply for the Palmetto Fellows Scholarship, provided that the student meets all eligibility requirements as described in the “Initial Eligibility” Section and provided that the student is entering an eligible independent or public institution no later than the fall term immediately following high school graduation. Early graduates who plan to begin college enrollment the spring term may apply to receive the LIFE Scholarship through the Commission on Higher Education. If the student is subsequently awarded the Palmetto Fellows Scholarship, then the student will receive the Palmetto Fellows Scholarship the fall term immediately following high school graduation for up to a maximum of seven terms.
- E. Students cannot earn eligibility for the Palmetto Fellows Scholarship after high school graduation. All students must apply and be awarded during the high school senior year.
- F. Students receiving the Palmetto Fellows Scholarship are not eligible for the LIFE Scholarship, SC HOPE Scholarship or Lottery Tuition Assistance within the same academic year.

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G. Any student who attempts to obtain or obtains the Palmetto Fellows Scholarship through means of a willfully false statement or failure to reveal any material fact, condition or circumstances affecting eligibility will be subject to applicable civil or criminal penalties, including loss of the Palmetto Fellows Scholarship.

### 62-318 Eligibility for Palmetto Fellows Scholarship Enhancement

A. To be eligible for the Palmetto Fellows Scholarship Enhancement each academic year, a student must be:

1. A Palmetto Fellow at the time the Scholarship Enhancement is disbursed;
2. Enrolled full-time, degree-seeking in a declared major in an eligible degree program;
3. Making satisfactory academic progress toward completion of his/her declared major; and
4. Enrolled in the second year, third year, fourth year, or fifth year (if enrolled in a Commission approved five-year bachelor's degree) at an eligible independent or public institution.

B. Students must successfully complete at least fourteen credit hours of instruction in mathematics or life and physical science or a combination of both at the end of the first year for the 2007 freshman class and thereafter. For the purpose of meeting the fourteen credit hour requirement at the end of the student's first year, exempted credit hours (AP, CLEP, IB, etc), credit hours earned while in high school (dual enrollment), and credit hours earned during the summer session immediately prior to the student's date of initial college enrollment made be used. However, remedial coursework and continuing education coursework cannot be used to meet the fourteen credit hour requirement. Palmetto Fellows who were already enrolled in at least their second year in the 2007-2008 academic year only are not required to meet the fourteen credit hour requirement at the end of their freshman year.

C. Any student who attempts to obtain or obtains the Palmetto Fellows Scholarship Enhancement through means of a willfully false statement or failure to reveal any material fact, condition or circumstances affecting eligibility will be subject to applicable civil or criminal penalties, including loss of the Palmetto Fellows Scholarship Enhancement.

### 62-320 Palmetto Fellows Scholarship Application

A. The Commission on Higher Education will send information regarding the application process to all South Carolina high schools, home school associations and district superintendents. High school officials will identify students who meet the specified eligibility criteria by each established deadline. Applications must be submitted no later than the established deadline(s) along with the appropriate signatures, official transcripts and test score verification to the Commission on Higher Education. Students who are enrolled at out-of-state high schools are personally responsible for contacting the Commission on Higher Education about the application process and must adhere to the same established deadline(s).

B. The high schools and home school associations must submit a list to the Commission on Higher Education indicating the names of all students who meet the eligibility criteria at their high school. The list should indicate whether the student is submitting a completed application or declining the opportunity to apply. If the student declines the opportunity to apply, the high school will submit a form for each of these students, signed by both the student and the parent/guardian and indicating the reason(s) for not submitting an application. Students who decline to apply for the Scholarship forfeit any future eligibility under this Program.

C. Applications for early awards must be submitted to the Commission on Higher Education for the Palmetto Fellows Scholarship by the date established in December each academic year. Students must meet one of the following set of academic criteria in order to be eligible to apply for the early awards (students cannot use the early awards criteria to apply during the final awards):

1. Score at least 1200 on the SAT or 27 on the ACT through the November test administration of the senior year; earn a minimum 3.50 cumulative GPA on the 2007 SC Uniform Grading Policy (UGP) at the end of the junior year; and rank in the top six percent of the class at the end of either the sophomore or the junior year; or

2. Score at least 1400 on the SAT or 32 on the ACT through the November test administration of the senior year and earn a minimum 4.00 cumulative GPA on the UGP at the end of the junior year, without regard to class rank.

D. Applications for final awards must be submitted to the Commission on Higher Education for the Palmetto Fellows Scholarship by the date established in June each academic year. Students must meet one of the following set of academic criteria in order to be eligible to apply for the final awards:

1. Score at least 1200 on the SAT or 27 on the ACT through the June test administration of the senior year; earn a minimum 3.50 cumulative GPA on the UGP at the end of the senior year; and rank in the top six percent of the class at the end of the sophomore, junior or senior year; or

2. Score at least 1400 on the SAT or 32 on the ACT through the June test administration of the senior year and earn a minimum 4.00 cumulative GPA on the UGP at the end of the senior year, without regard to class rank.

E. Students must have official verification that they earned the requisite score on the SAT I or an equivalent ACT score. The Commission on Higher Education shall convert all ACT scores to the equivalent SAT scores. In order to determine the minimum composite score for the SAT, students must use the highest Math score combined with the highest Critical Reading score. However, students cannot use the Writing subsection score to meet the minimum SAT score requirement. In order to determine the minimum composite score for the ACT, students must use the highest composite score based upon one test administration.

F. Grade point averages must be based on the 2007 Uniform Grading Policy, reported with at least two decimal places, and may not be rounded up.

G. Class rank must be based on the Uniform Grading Policy using diploma candidates only. Class rank is determined at the end of the sophomore, junior and senior years (not the beginning of the next school year) before including any summer school coursework or including any students who transfer into your high school after the school year ended in May/June. Students cannot be removed from the class because they did not meet the eligibility criteria to apply, declined to apply, are not residents of the State, do not meet citizenship requirements, plan to attend college out-of-state, etc. The class rank information must include all students who attended your high school that school year.

H. The number of students included in the top six percent of the class will be the next whole number if the top six percent is not already a whole number. For example, a class size of 185 students would include the top twelve students since 11.1 rounds up to twelve. For those high schools with fewer than twenty students in the class, the top two students (students ranked as number one and two) shall be considered for the Scholarship regardless of whether they rank in the top six percent of the class. These students must meet all other eligibility criteria.

I. In order to apply for the Palmetto Fellows Scholarship using rank as one of the eligibility criteria, home school students must be a member of an approved home school program (as defined in relevant State Statute) that provides an official class rank for their members. The home school association must submit a rank report on the association's letterhead that includes the class rank and GPA based on the 2007 SC Uniform Grading Policy for all home school students in the applicant's class. If a home school student is unable to obtain rank verification, he/she may also be eligible to apply using the alternative criteria of scoring at least 1400 on the SAT (or 32 on the ACT) and earning a minimum 4.00 cumulative GPA on the UGP, without regard to class rank. These students must meet all other eligibility criteria.

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J. For the purposes of meeting the rank criterion, the existing high school rank of a South Carolina resident attending an out-of-state high school may be used, provided it is calculated pursuant to a state-approved, standardized grading scale at the respective out-of-state high school. If the Commission on Higher Education determines that a state-approved standardized grading scale substantially deviates from the S.C. Uniform Grading Scale, the state-approved, standardized grading scale shall not be used to meet the eligibility requirements for the Palmetto Fellows Scholarship. To be considered equivalent, the out-of-state school's grading scale must adhere to the following minimum requirements:

1. Must include all courses carrying Carnegie units, including units earned at the middle school and high school level;

2. To be equivalent to an "A" letter grade, the numerical average must be  $\geq 93$ ; to be equivalent to a "B" letter grade the numerical average must be between 85 and 92; to be equivalent to a "C" letter grade the numerical average must be between 77 and 84; to be equivalent to a "D" letter grade the numerical average must be between 70 and 76; and to be equivalent to a "F" letter grade the numerical average must be between 62 and 69 (if a course with a numerical average of  $< 62$  is considered passing by the high school the student earned the grade, then a 73 numerical average should be given);

3. Cannot add more than one half (.50) additional quality point for honors courses; cannot add more than one additional quality point for dual enrollment (DE) courses, Advanced Placement (AP) courses, and standard level International Baccalaureate (IB) courses; and, cannot add more than two additional quality points for higher level IB courses;

4. Must classify all other courses as College Preparatory if they are not already classified as honors, DE, AP or IB. For a class to be classified as honors, the course must be in English, mathematics, science or social studies or be the third/fourth level for all other content areas; and

5. If no numerical average is available, all letter grades must be converted to the equivalent numerical average based on the following: all "A" letter grades must be converted to a 96 numerical average, all "B" letter grades must be converted to a 88 numerical average, all "C" letter grades must be converted to a 80 numerical average, all "D" letter grades must be converted to a 73 numerical average, and all "F" numerical averages must be converted a 61 numerical average.

K. Students who attend out-of-state preparatory high school may also be eligible to apply by using the alternative criteria of scoring at least 1400 on the SAT (or 32 on the ACT) and earning a minimum 4.00 cumulative GPA on the Uniform Grading Policy. The student's guidance counselor must convert the student's grades to the UGP to determine if the student meets the GPA requirement. These students must meet all other eligibility criteria, including South Carolina residency requirements.

### 62-325 Palmetto Fellows Scholarship Selection Process

A. The Commission on Higher Education will notify students of their selection as a Palmetto Fellow along with the terms and conditions of the award.

B. In order to accept the Scholarship, students must return a form that designates an eligible independent or public institution in which they plan to enroll by the date established by the Commission on Higher Education.

C. Visually impaired, hearing impaired or multi-handicapped students who qualify for the Scholarship may use the Palmetto Fellows Scholarship to attend a four-year out-of-state institution that specializes in educating students with their impairment upon receiving prior approval from the Commission on Higher Education. The Commission on Higher Education shall make the final decision whether an out-of-state institution specializes in the postsecondary education of visually impaired, hearing impaired or multi-handicapped students.



D. The Commission on Higher Education shall ensure that there is equitable minority participation in the Program.

62-330 Policies and Procedures for Awarding the Palmetto Fellows Scholarship and the Palmetto Fellows Scholarship Enhancement

A. The institution will identify award amounts, which cannot exceed:

1. \$6,700 the first/freshman year and \$7,500 for the second year, third year, fourth year and fifth year for the Palmetto Fellows Scholarship;

2. \$2,500 for the second year, third year, fourth year and fifth year for the Palmetto Fellows Scholarship Enhancement.

B. Half shall be awarded during the fall term and half during the spring term. Palmetto Fellows Scholarships and Palmetto Fellows Scholarship Enhancements are to be used only toward payment for cost-of-attendance as established by Title IV Regulations with modifications set forth in D below for the academic year the award is made at the designated independent or public institution. The maximum amount awarded shall not exceed the cost-of-attendance as established by Title IV Regulations for any academic year.

C. Students who change their major from an ineligible degree program to an eligible degree program during the same academic year cannot be awarded the Palmetto Fellows Scholarship Enhancement until the next academic year. Additionally, students who change their major from an eligible degree program to an ineligible degree program during the same academic year will retain their Palmetto Fellows Scholarship Enhancement eligibility for the remainder of the current academic year.

D. Charges for room and board are to be limited as follows:

1. Room charges shall not exceed the average cost of on-campus residential housing; and

2. Board charges shall not exceed the cost of the least expensive campus meal plan that includes 21 meals per week.

E. In determining the amount awarded for the Palmetto Fellows Scholarship and the Palmetto Fellows Scholarship Enhancement, all other sources of gift aid, including federal, State, private and institutional funds, must be applied to the unmet cost-of-attendance in accord with Title IV regulations before calculating the Scholarship and Enhancement amounts and making the award. Adjustments to the financial aid package will be made to the Palmetto Fellows Scholarship and the Palmetto Fellows Scholarship Enhancement in accordance with prescribed Title IV regulations in order to prevent an over-award.

F. Although a student may be named a Palmetto Fellow, the student may not receive a monetary award, if the award when combined with all other sources of gift aid would cause the student to receive financial assistance in excess of the student's cost-of-attendance as defined by Title IV regulations and the guidelines contained herein.

G. Eligible independent and public institutions will notify students of their award along with the terms and conditions.

H. The institution must retain annual paper or electronic documentation for each award to include at a minimum:

1. Institutional Student Information Record (ISIR) or affidavit documenting that the student is not in default or does not owe a refund on any state or federal financial aid

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2. Affidavit documenting that the student has never been convicted of any felonies and has not been convicted of any second or subsequent alcohol/drug-related misdemeanor offense within the past academic year as stated under "Initial Eligibility" and "Duration and Renewal of Awards" Sections

3. Award notification

4. Institutional disbursements to student

5. Verification student is not in default and does not owe a refund or repayment

6. Student's residency status and citizenship status

7. Enrollment status and degree-seeking status

8. Verification of cumulative GPA and annual credit hours for renewal purposes

9. Verification from the institutional Disability Services Provider of student's disability and approval of reduced course-load requirement (if appropriate)

10. Military mobilization orders (if appropriate)

11. Verification student met fourteen credit hour requirement at the end of the first year of college enrollment for the 2007-08 freshman class and thereafter (Palmetto Fellows Scholarship Enhancement purposes only)

12. Verification from academic department of enrollment in a declared major in an eligible degree program (Palmetto Fellows Scholarship Enhancement purposes only).

I. It is the institution's responsibility to ensure that only eligible students receive the Palmetto Fellows Scholarship and the Palmetto Fellows Scholarship Enhancement.

### 62-335 Duration and Renewal of Awards

A. The Palmetto Fellows Scholarship and Palmetto Fellows Scholarship Enhancement where applicable shall be initially awarded for one academic year. The institution shall adjust the amount of the Scholarship and Enhancement awards during the academic year in the event of a change in the student's eligibility.

B. Students selected as Palmetto Fellows must enter an eligible independent or public institution the fall term immediately following high school graduation.

C. A Palmetto Fellows Scholarship may be renewed annually for no more than a total of eight terms (based on the date of initial college enrollment) toward the first bachelor's degree or a program of study that is structured so as not to require a bachelor's degree and leads to a graduate degree or for no more than a total of ten terms (based on the date of initial college enrollment) toward the first approved five-year bachelor's degree. The Palmetto Fellows Scholarship Enhancement may not be awarded for no more than a total of six terms (based on the date of initial college enrollment) toward the first bachelor's degree or a program of study that is structured so as not to require a bachelor's degree and leads to a graduate degree or for no more than a total of eight terms (based on the date of initial college enrollment) toward the first approved five-year bachelor's degree. Students who have already been awarded their first bachelor or graduate degree are not eligible to receive the Palmetto Fellows Scholarship or the Palmetto Fellows Scholarship Enhancement.

D. The institution is responsible for obtaining institutional certification of each recipient's cumulative grade point average and annual credit hours for the purposes of determining eligibility for award renewal. For the Palmetto Fellows Scholarship Enhancement, the institution must also obtain verification from the academic department of enrollment in a declared major in an eligible degree program.

E. By the end of the spring term each academic year, the institution must notify all Palmetto Fellows who have not met the continued eligibility requirements for the next academic year. The notification should include information regarding the student's ability to attend summer school in order to meet the continued eligibility requirements.

F. In order to retain eligibility for the Palmetto Fellows Scholarship after the initial year, the student must meet the following continued eligibility requirements:

1. Enroll full-time, degree-seeking at the time of Scholarship disbursement;
2. Earn at least a 3.0 cumulative GPA at the home institution for graduation purposes by the end of each academic year;
3. Earn a minimum of thirty credit hours for graduation purposes by the end of each academic year. Exempted credit hours (such as AP, CLEP, etc.), credit hours earned before high school graduation, and credit hours earned the summer term immediately following high school graduation cannot be used to meet the annual credit hour requirement;
4. Certify each academic year that he/she has not defaulted and does not owe a refund or repayment on any federal or state financial aid. If a student has an Institutional Student Information Record (ISIR) or its equivalent on file, the ISIR information will be used to verify default status or refund/repayment owed. Students who have not completed the Free Application for Federal Student Aid (FAFSA) must have an affidavit on file to verify that he/she is not in default and does not owe a refund or repayment on any federal or state financial aid, including the state grants/scholarships, Pell Grant, Supplemental Educational Opportunity Grant, Federal Perkins or Stafford Loan; and
5. Certify each academic year that he/she has never been adjudicated delinquent, convicted or pled guilty or *nolo contendere* to any felonies and any second or subsequent alcohol/drug-related misdemeanor offenses under the laws of this or any other state or under the laws of the United States by submitting a signed affidavit to the home institution. However, a high school or college student who has been adjudicated delinquent, convicted, or pled guilty or *nolo contendere* of a second or subsequent alcohol or drug-related misdemeanor offense is only ineligible for the next academic year of enrollment at an eligible independent or public institution after the date of the adjudication, conviction or plea. If the adjudication, conviction or plea occurs during the academic year after the student has already submitted a signed affidavit to the institution, the student will continue to be eligible for the remainder of the academic year. However, the student will be ineligible for the Scholarship for the following academic year of enrollment. If a student completes a pretrial intervention program and his/her record is subsequently expunged, the charge will not affect Scholarship eligibility.

G. In order to retain eligibility for the Palmetto Fellows Scholarship Enhancement, a student must:

1. Be a Palmetto Fellow at the time the Scholarship Enhancement is disbursed;
2. Be enrolled full-time, degree-seeking in a declared major in an eligible degree program;
3. Be making satisfactory academic progress toward completion of his/her declared major;
4. Be enrolled in the second year, third year, fourth year or fifth year (if enrolled in a Commission approved five-year bachelor's degree) at an eligible independent or public institution; and
5. Successfully complete at least fourteen credit hours of instruction in mathematics or life and physical science or a combination of both at the end of the first year for the 2007 freshman class and thereafter. For the purpose of meeting the fourteen credit hour requirement at the end of the student's first year, exempted credit hours (AP, CLEP, IB, etc), credit hours earned while in high school (dual enrollment), and credit hours earned during the summer session immediately prior to the student's date of initial college enrollment may be used. However, remedial coursework and continuing education coursework cannot be used to meet the fourteen credit hour requirement. Palmetto Fellows who were already enrolled in at least their second year in the 2007-

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2008 academic year only are not required to meet the fourteen credit hour requirement at the end of their first/freshman year.

H. Any student who attempts to obtain or obtains a Palmetto Fellows Scholarship or Palmetto Fellows Scholarship Enhancement through means of a willfully false statement or failure to reveal any material fact, condition, or circumstances affecting eligibility will be subject to applicable civil or criminal penalties, including loss of the Palmetto Fellows Scholarship and Palmetto Fellows Scholarship Enhancement.

### 62-340 Transfer of or Reapplication for the Palmetto Fellows Scholarship and the Palmetto Fellows Scholarship Enhancement

A. Palmetto Fellows enrolled at an eligible independent or public institution may transfer to another eligible independent or public institution in South Carolina upon obtaining prior approval from the Commission on Higher Education by submitting a transfer form, which is available on the Commission's Web site.

B. A student who applied for and was offered the Palmetto Fellows Scholarship as a senior in high school, but declined the award to attend an out-of-state four-year institution the fall term immediately following high school graduation, may reapply if they transfer to an eligible independent or public institution in South Carolina. The reapplication form is available on the Commission's Web site.

C. Transfer students and reapplication students are only eligible to receive the Palmetto Fellows Scholarship and the Palmetto Fellows Scholarship Enhancement for the remaining terms of eligibility (based on the date of initial college enrollment).

D. Transfer students and reapplication students must comply with all standards for continued eligibility as defined under the "Duration and Renewal of Awards" Section in order for their award to be eligible for transfer.

E. The eligible independent or public institution is responsible for reviewing all Palmetto Fellows transferring to their institution to determine whether the students are eligible for the Palmetto Fellows Scholarship Enhancement.

### 62-345 Students with Disabilities

A. Palmetto Fellows who qualify under the Americans with Disabilities Act (ADA) and Section 504 of the Rehabilitation Act of 1973 must meet all eligibility requirements as defined in the "Initial Eligibility" Section, except for the full-time enrollment requirement, in order to be eligible to receive funding. Students must comply with all institutional policies and procedures in accordance with ADA and Section 504 of the Rehabilitation Act of 1973.

B. For renewal, Palmetto Fellows who qualify under ADA and Section 504 of the Rehabilitation Act of 1973 must meet all renewal requirements as defined in the "Duration and Renewal of Awards" Section, except for a student not meeting the annual credit hour requirement who is approved by the Disability Services Provider at the home institution to be enrolled in less than full-time status or less than the required annual credit hours for that academic year. Each academic year for award renewal, students must earn the required number of hours approved by the institutional Disability Services Provider at the home institution and earn a minimum 3.0 cumulative grade point average at the home institution for graduation purposes. Students must comply with all institutional policies and procedures in accordance with ADA and Section 504 of the Rehabilitation Act of 1973.

C. The institutional Disability Services Provider must provide written documentation to the Office of Financial Aid prior to each academic year verifying that the student is approved to be enrolled in less than full-time

status or less than the required annual credit hours. It is the responsibility of transfer students and reapplication students to provide written documentation from the previous institutional Disability Services Provider.

D. Palmetto Fellows who qualify under ADA and Section 504 of the Rehabilitation Act of 1973 are eligible to receive up to the maximum number of available terms and available funds.

#### 62-350 Enrollment in Internships, Cooperative Work Programs, Travel Study Programs, or National or International Student Exchange Programs

A. Students enrolled in internships, cooperative work programs, travel study programs, or National or International Student Exchange Programs that are approved by the home institution and that the home institution accepts as full-time transfer credit are eligible to receive Palmetto Fellows Scholarship and Palmetto Fellow Scholarship Enhancement funds during the period in which the student is enrolled in such programs. Students will be required to meet the continued eligibility requirements.

B. Eligible students may use the appropriated portion of the Palmetto Fellows Scholarship and the Palmetto Fellows Scholarship Enhancement funds for internships, cooperative work programs, travel study programs, or National or International Student Exchange Programs that are approved by the home institution and that the home institution accepts as full-time transfer credit. Palmetto Fellows Scholarship and Palmetto Fellows Scholarship Enhancement funds must be paid directly to the student's account at the home institution. The amount awarded cannot exceed the cost-of-attendance at the home institution or the cost-of-attendance at the host institution, whichever is less. The Commission on Higher Education will not transfer funds to the institutions where students will participate in internships, cooperative work programs, travel study programs, or National or International Student Exchange Programs. The home institution is responsible for funds according to the "Program Administration and Audits" Section.

C. Students who enroll in one academic term at the home institution and also enroll in an internship, cooperative work program, travel study program, or National or International Student Exchange Program that are approved by the home institution and that do not award full-time transfer credit during the same academic year must earn at least fifteen credit hours and a minimum 3.0 cumulative grade point average at the home institution for graduation purposes by the end of the academic year to be eligible for renewal the next academic year. The student may continue to be eligible for up to the maximum terms of eligibility based on the date of initial college enrollment (provided the student meets the continued eligibility requirements).

D. For students enrolling in an internship, cooperative work program, travel study program, or National or International Student Exchange Program that is approved by the home institution but does not award full-time transfer credit for the entire academic year, renewal for the next academic year will be based on the prior year's eligibility. The student may continue to be eligible for up to the maximum terms of eligibility based on the date of initial college enrollment (provided the student meets the continued eligibility requirements).

E. Students enrolling in an internship, a cooperative work program, a travel study program, or National or International Student Exchange Program that are approved by the home institution during the academic year and did not use their entire eligibility for the Palmetto Fellows Scholarship or the Palmetto Fellows Scholarship Enhancement funds during this period shall be allowed to receive one term of Palmetto Fellows Scholarship and Palmetto Fellows Scholarship Enhancement funds during the succeeding summer or at the end of the maximum terms of eligibility based on the date of initial college enrollment (provided the student meets the continued eligibility requirements). In order to receive the Palmetto Fellows Scholarship and the Palmetto Fellows Scholarship Enhancement funds for the succeeding summer term, students must enroll in twelve credit hours at the home institution. In order to maintain eligibility for the next academic year for students who only attend summer school, the student must earn at least twelve credit hours by the end of the academic year. For students who enroll in summer school and one other term of the academic year, the student must earn a total of at least 27 credit hours by the end of the academic year. The student must meet all continued eligibility requirements, except for the completion of the annual credit hour requirement for the academic year.

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F. The home institution will be responsible for obtaining official certification of the student's cumulative grade point average and annual credit hours earned for purposes of determining eligibility for Scholarship and Enhancement renewal for the next academic year. For purposes of Enhancement eligibility, the home institution must also obtain certification from the academic department of enrollment in a declared major in an eligible degree program.

### 62-351 Military Mobilization

A. Service members who are enrolled in college and are affected by military mobilizations will not be penalized for the term they are required to withdraw after the full refund period based on the institutional policies and procedures. Institutions are strongly encouraged to provide a full refund of required tuition, fees and other institutional charges or to provide a credit in a comparable amount against future charges for students who are forced to withdraw as a result of military mobilization. Additionally, the term(s) that the service member is mobilized will not count against the maximum terms of eligibility. The service member shall be allowed to receive the unused term(s) while mobilized during the succeeding summer term or at the end of the maximum terms of eligibility (provided the service member meets continued eligibility requirements). The service member must re-enroll in an eligible independent or public institution within twelve months upon their demobilization and provide official documentation to verify military deployment to the institutional Financial Aid Office upon re-enrollment. Reinstatement will be based upon the service member's eligibility at the time he/she was mobilized. If the service member re-enrolls after the twelve month period, the service member must submit an Appeal Application to the Commission on Higher Education by the established deadline in order to be considered for reinstatement.

B. Service members who are enrolled in college and are mobilized for a minimum of one academic year may be eligible the next academic year, if they met the continued eligibility requirements at the end of the last academic year of attendance. Service members may continue to be eligible for up to the maximum terms of eligibility based on the date of initial college enrollment (provided the service member meets the continued eligibility requirements).

C. Service members who are enrolled in college and are mobilized for one academic term must complete at least fifteen credit hours and a minimum 3.0 cumulative grade point average at the home institution for graduation purposes by the end of the academic year to be eligible for renewal for the next academic year. Service members may continue to be eligible for up to the maximum terms of eligibility based on the date of initial college enrollment (provided the service member meets the continued eligibility requirements).

D. In order to receive the Palmetto Fellows Scholarship and Palmetto Fellows Scholarship Enhancement for summer school for any unused term(s), the service member must enroll in twelve credit hours during the succeeding summer term at the home institution. For service members who enroll in summer school and one other term of the academic year, the service member must earn a total of at least twenty-seven credit hours by the end of the academic year. In order to maintain eligibility for the next academic year for service members who only attend summer school, the member must earn at least twelve credit hours by the end of the academic year. The service member must meet all continued eligibility requirements, except for the completion of the annual credit hour requirement for the academic year.

E. The home institution will be responsible for obtaining verification of military mobilization status, cumulative grade point average and annual credit hours for the purpose of determining eligibility to renew the Palmetto Fellows Scholarship for the next academic year. For purposes of the Palmetto Fellows Scholarship Enhancement, the home institution must also obtain certification from the academic department of enrollment in a declared major in an eligible degree program.

62-355 Appeals Procedures

- A. The Commission on Higher Education shall define the procedures for scholarship appeals.
- B. A student who does not meet the continued eligibility criteria for renewal of the Palmetto Fellows Scholarship forfeits continued participation in the Program and may request an appeal based on extenuating circumstances.
- C. A student is allowed to submit only one appeal each academic year.
- D. A student wishing to appeal any non-renewal decision based on extenuating circumstances must submit the following source documents to the Commission on Higher Education by no later than the established deadline of the academic year the scholarship is requested:
  - 1. A completed application for appeal
  - 2. A letter requesting an appeal and describing the extenuating circumstances
  - 3. An official transcript(s)
  - 4. Any other supporting documentation to substantiate the basis for the appeal.
- E. A student who fails to submit an appeal by the required deadline will result in forfeiture of the award.
- F. The Palmetto Fellows Scholarship shall be suspended during the appeal period, but will be awarded retroactively if the appeal is granted.
- G. Students cannot appeal solely on the loss of the Palmetto Fellows Scholarship Enhancement.
- H. The Appeals Committee's decision is final.

62-360 Institutional Disbursement of Funds

- A. The institution will identify award amounts, which cannot exceed:
  - 1. \$6,700 the first/freshman year and \$7,500 for the second year, third year, fourth year and fifth year for the Palmetto Fellows Scholarship;
  - 2. \$2,500 for the second year, third year, fourth year and fifth year for the Palmetto Fellows Scholarship Enhancement.
- B. Half shall be awarded during the fall term and half during the spring term. Funds cannot be disbursed during the summer or any interim sessions except for disbursements made in accordance with the requirements of the "Enrollment in Internships, Cooperative Work Programs, Travel Study Programs, or National or International Student Exchange Programs" or "Military Mobilization" Sections. Palmetto Fellows may not be funded for more than a total of eight terms of study toward the first bachelor's degree or a program of study that is structured so as not to require a bachelor's degree and leads to a graduate degree or for more than a total of ten terms of study toward the first approved five-year degree. Palmetto Fellows Scholarship Enhancements may not be funded for more than a total of six terms toward the first bachelor's degree or a program of study that is structures so as not to require a bachelor's degree or for no more than a total of eight terms toward the first-approved bachelor's degree.
- C. The Palmetto Fellows Scholarship and the Palmetto Fellows Scholarship Enhancement cannot be applied to remedial coursework, continuing education coursework, a second bachelor's degree or to graduate coursework, unless the graduate coursework is required as part of a program of study that is structured so as not to require a bachelor's degree and leads to a graduate degree as defined in the "Definitions" Section or the student is

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enrolled in one of the following programs: 1) Master of Science in Physician Assistant Studies at the Medical University of South Carolina; 2) Master of Science in Cytology and Biosciences at the Medical University of South Carolina; 3) Doctor of Pharmacy at the Medical University of South Carolina and the University of South Carolina (S.C. College of Pharmacy). In the event of early graduation, the award is discontinued.

D. Students who change their major from an ineligible degree program to an eligible degree program during the same academic year cannot be awarded the Palmetto Fellows Scholarship Enhancement until the next academic year. Additionally, students who change their major from an eligible degree program to an ineligible degree program during the same academic year will retain their Palmetto Fellows Scholarship Enhancement eligibility for the remainder of the current academic year.

E. The institution shall provide each Palmetto Fellow with an award notification for each academic year, which will contain the terms and conditions of the Scholarship and other financial aid awarded. Students will be notified of adjustments in financial aid due to changes in eligibility and/or over-award issues. The Commission on Higher Education, for documentation purposes, requires that each institution obtain verification of acceptance of the Palmetto Fellows Scholarship and the Palmetto Fellows Scholarship Enhancement and terms for the awards.

F. After the last day to register for each term of the academic year, the institution will verify enrollment of each recipient as a South Carolina resident who is a full-time degree-seeking student.

G. The institution must submit a request for funds and/or return of funds by the established deadline each term. The Commission will disburse funds to eligible independent and public institutions to be placed in each eligible student's account. In addition, a listing of eligible recipients by identification number with the award amounts must be sent to the Commission on Higher Education by the established deadline each term. At this time, any unused funds must be returned to the Commission immediately.

H. The Commission will disburse awards to the eligible independent and public institutions to be placed in each eligible student's account.

### 62-365 Refunds and Repayments

A. In the event a student who has been awarded the Palmetto Fellows Scholarship and Palmetto Fellows Scholarship Enhancement withdraws, is suspended from the institution, or drops below full-time status during any regular term of the academic year, institutions must reimburse the Program for the amount of the Palmetto Fellows Scholarship and Palmetto Fellows Scholarship Enhancement for the term in question pursuant to refund policies of the institution. Collection is the responsibility of the institution.

B. In the event a student withdraws or drops below full-time status after the institution's refund period and therefore must pay tuition and fees for full-time enrollment, the award may be retained by the student pursuant to the refund policies of the institution.

### 62-370 Program Administration and Audits

A. The South Carolina Commission on Higher Education shall be responsible for the oversight of functions (e.g., guidelines, policies, rules, regulations) relative to this Program with the eligible independent and public institutions. The Commission on Higher Education shall be responsible for the allocation of funds, promulgation of guidelines and regulation governing the Program, any audits, or other oversight as may be deemed necessary to monitor the expenditure of funds.



B. According to the Audit Policies and Procedures for Scholarship and Grant Programs Manual, all eligible independent and public institutions must abide by all Program policies, rules and regulations. Institutions also agree to maintain and provide all pertinent information, records, reports or any information as may be required or requested by the Commission on Higher Education or the General Assembly to ensure proper administration of the Program.

C. The Chief Executive Officer at each eligible independent and public institution shall identify to the Commission on Higher Education an institutional representative who is responsible for the operation of the Program on the campus and will serve as the contact person for the Program. The institutional representative will act as the student's fiscal agent to receive and deliver funds for use under the Program.

#### 62-375 Suspension or Termination of Institutional Participation

A. The Commission on Higher Education may review institutional administrative practices to determine compliance with pertinent statutes, guidelines, rules or regulations. If such a review determines that an institution has failed to comply with Program statutes, guidelines, rules or regulations, the Commission on Higher Education may suspend, terminate, or place certain conditions upon the institution's continued participation in the Program and require reimbursement to the Program for any funds lost or improperly awarded.

B. Upon receipt of evidence that an institution has failed to comply, the Commission on Higher Education shall notify the institution in writing of the nature of such allegations and conduct an audit.

C. If an audit indicates that a violation(s) may have occurred or are occurring at any eligible independent or public institution, the Commission on Higher Education shall secure immediate reimbursement from the institution in the event that any funds were expended out of compliance with the provisions of the Act, any relevant statutes, guidelines, rules, and regulations.

#### **Fiscal Impact Statement:**

No additional state funding is requested. The SC Commission on Higher Education estimates that no additional costs will be incurred by the State and its political subdivisions in complying with the proposed revisions to Regulation 69-300.

#### **Statement of Rationale:**

Pursuant to Act 115 of 2007 and subsequently amended by Act 235 in 2008, the SC Commission on Higher Education is mandated to promulgate regulation and establish procedures for administration of the Palmetto Fellows Scholarship Enhancement.

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Document No. 4036  
**DEPARTMENT OF INSURANCE**  
CHAPTER 69

Statutory Authority: 1976 Code Sections 1-23-10, 38-3-110, 38-57-60, 38-63-10, 38-63-20, 38-63-660, 38-65-10, 38-65-20, 38-65-360, 38-69-10, 38-69-20, and 38-69-330

### 69-12.1. Replacement of Life Insurance and Annuities

#### **Synopsis:**

The Replacement of Life Insurance and Annuities Model Regulation was recently updated by the National Association of Insurance Commissioners (NAIC). The model regulation establishes additional consumer safeguards to be implemented by insurers and producers when the replacement of life insurance and annuities is involved in an insurance transaction. The proposed regulation requires notices to the applicant and existing insurer by the replacing insurer and places recordkeeping requirements on both insurers and producers when replacement is involved. The proposed regulation also provides for the exception of replacement requirements for term life conversions between affiliated companies. These revisions put inter-affiliate term conversions on the same footing as exchanges between the same insurer—internal, intra-company conversions. The amendments to Regulation 69-12.1 will provide uniformity of regulation with other states who have adopted the model regulation.

#### **Instructions:**

Regulation 69-12.1 is modified as provided below.

#### **Text:**

### 69-12.1 Replacement of Life Insurance and Annuities

#### Section 1. Purpose and Scope

A. The purpose of this regulation is:

(1) To regulate the activities of insurers and producers with respect to the replacement of existing life insurance and annuities.

(2) To protect the interests of life insurance and annuity purchasers by establishing minimum standards of conduct to be observed in replacement or financed purchase transactions. It will:

(a) Assure that purchasers receive information with which a decision can be made in his or her own best interest;

(b) Reduce the opportunity for misrepresentation and incomplete disclosure; and

(c) Establish penalties for failure to comply with requirements of this regulation.

B. Unless otherwise specifically included, this regulation shall not apply to transactions involving:

(1) Credit life insurance;

(2) Group life insurance or group annuities where there is no direct solicitation of individuals by an insurance producer. Direct solicitation shall not include any group meeting held by an insurance producer solely for the purpose of educating or enrolling individuals or, when initiated by an individual member of the group, assisting with the selection of investment options offered by a single insurer in connection with enrolling that individual. Group life insurance or group annuity certificates marketed through direct response solicitation shall be subject to the provisions of Section 7;

(3) Group life insurance and annuities used to fund prearranged funeral contracts;

(4) An application to the existing insurer that issued the existing policy or contract when a contractual change or a conversion privilege is being exercised; or, when the existing policy or contract is being replaced by the same insurer pursuant to a program filed with and approved by the director; or, when a term conversion privilege is exercised among corporate affiliates;

(5) Proposed life insurance that is to replace life insurance under a binding or conditional receipt issued by the same company;

(6) (a) Policies or contracts used to fund (i) an employee pension or welfare benefit plan that is covered by the Employee Retirement and Income Security Act (ERISA); (ii) a plan described by Sections 401(a), 401(k) or 403(b) of the Internal Revenue Code, where the plan, for purposes of ERISA, is established or maintained by an employer; (iii) a governmental or church plan defined in Section 414, a governmental or church welfare benefit plan, or a deferred compensation plan of a state or local government or tax exempt organization under Section 457 of the Internal Revenue Code; or (iv) a nonqualified deferred compensation arrangement established or maintained by an employer or plan sponsor;

(b) Notwithstanding Subparagraph (a), this regulation shall apply to policies or contracts used to fund any plan or arrangement that is funded solely by contributions an employee elects to make, whether on a pre-tax or after-tax basis, and where the insurer has been notified that plan participants may choose from among two (2) or more insurers and there is a direct solicitation of an individual employee by an insurance producer for the purchase of a contract or policy. As used in this subsection, direct solicitation shall not include any group meeting held by an insurance producer solely for the purpose of educating individuals about the plan or arrangement or enrolling individuals in the plan or arrangement or, when initiated by an individual employee, assisting with the selection of investment options offered by a single insurer in connection with enrolling that individual employee;

(7) Where new coverage is provided under a life insurance policy or contract and the cost is borne wholly by the insured's employer or by an association of which the insured is a member;

(8) Existing life insurance that is a non-convertible term life insurance policy that will expire in five (5) years or less and cannot be renewed;

(9) Immediate annuities that are purchased with proceeds from an existing contract. Immediate annuities purchased with proceeds from an existing policy are not exempted from the requirements of this regulation; or

(10) Structured settlements.

C. Registered contracts shall be exempt from the requirements of Sections 5.A.(2) and 6.B. with respect to the provision of illustrations or policy summaries; however, premium or contract contribution amounts and identification of the appropriate prospectus or offering circular shall be required instead.

## Section 2. Definitions

A. "Direct-response solicitation" means a solicitation through a sponsoring or endorsing entity or individual solely through mails, telephone, the Internet or other mass communication media.

B. "Existing insurer" means the insurance company whose policy or contract is or will be changed or affected in a manner described within the definition of "replacement."

C. "Existing policy or contract" means an individual life insurance policy (policy) or annuity contract (contract) in force, including a policy under a binding or conditional receipt or a policy or contract that is within an unconditional refund period.

D. "Financed purchase" means the purchase of a new policy involving the actual or intended use of funds obtained by the withdrawal or surrender of, or by borrowing from values of an existing policy to pay all or part of any premium due on the new policy. For purposes of a regulatory review of an individual transaction only, if a withdrawal, surrender or borrowing involving the policy values of an existing policy is used to pay premiums on a new policy owned by the same policyholder and issued by the same company within four (4) months before or thirteen (13) months after the effective date of the new policy, it will be deemed prima facie evidence of the policyholder's intent to finance the purchase of the new policy with existing policy values. This prima facie standard is not intended to increase or decrease the monitoring obligations contained in Section 4.A.(5) of this regulation.

E. "Illustration" means a presentation or depiction that includes non-guaranteed elements of a policy of life insurance over a period of years as defined in Regulation 69-40.

F. "Policy summary," for the purposes of this regulation:

(1) For policies or contracts other than universal life policies, means a written statement regarding a policy or contract which shall contain to the extent applicable, but need not be limited to, the following

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information: current death benefit; annual contract premium; current cash surrender value; current dividend; application of current dividend; and amount of outstanding loan;

(2) For universal life policies, means a written statement that shall contain at least the following information: the beginning and end date of the current report period; the policy value at the end of the previous report period and at the end of the current report period; the total amounts that have been credited or debited to the policy value during the current report period, identifying each by type (e.g., interest, mortality, expense and riders); the current death benefit at the end of the current report period on each life covered by the policy; the net cash surrender value of the policy as of the end of the current report period; and the amount of outstanding loans, if any, as of the end of the current report period.

G. "Producer," for the purpose of this regulation, shall be defined to include agents, brokers and producers.

H. "Replacing insurer" means the insurance company that issues or proposes to issue a new policy or contract that replaces an existing policy or contract or is a financed purchase.

I. "Registered contract" means a variable annuity contract or variable life insurance policy subject to the prospectus delivery requirements of the Securities Act of 1933.

J. "Replacement" means a transaction in which a new policy or contract is to be purchased, and it is known or should be known to the proposing producer, or to the proposing insurer if there is no producer, that by reason of the transaction, an existing policy or contract has been or is to be:

(1) Lapsed, forfeited, surrendered or partially surrendered, assigned to the replacing insurer or otherwise terminated;

(2) Converted to reduced paid-up insurance, continued as extended term insurance, or otherwise reduced in value by the use of nonforfeiture benefits or other policy values;

(3) Amended so as to effect either a reduction in benefits or in the term for which coverage would otherwise remain in force or for which benefits would be paid;

(4) Reissued with any reduction in cash value; or

(5) Used in a financed purchase.

K. "Sales material" means a sales illustration and any other written, printed or electronically presented information created, or completed or provided by the company or producer and used in the presentation to the policy or contract owner related to the policy or contract purchased.

### Section 3. Duties of Producers

A. A producer who initiates an application shall submit to the insurer, with or as part of the application, a statement signed by both the applicant and the producer as to whether the applicant has existing policies or contracts. If the answer is "no," the producer's duties with respect to replacement are complete.

B. If the applicant answered "yes" to the question regarding existing coverage referred to in Subsection A, the producer shall present and read to the applicant, not later than at the time of taking the application, a notice regarding replacements in the form as described in Appendix A or other substantially similar form approved by the director. However, no approval shall be required when amendments to the notice are limited to the omission of references not applicable to the product being sold or replaced. The notice shall be signed by both the applicant and the producer attesting that the notice has been read aloud by the producer or that the applicant did not wish the notice to be read aloud (in which case the producer need not have read the notice aloud) and left with the applicant.

C. The notice shall list all life insurance policies or annuities proposed to be replaced, properly identified by name of insurer, the insured or annuitant, and policy or contract number if available; and shall include a statement as to whether each policy or contract will be replaced or whether a policy will be used as a source of financing for the new policy or contract. If a policy or contract number has not been issued by the existing insurer, alternative identification, such as an application or receipt number, shall be listed.

D. In connection with a replacement transaction the producer shall leave with the applicant at the time an application for a new policy or contract is completed the original or a copy of all sales material. With respect to electronically presented sales material, it shall be provided to the policy or contract owner in printed form no later than at the time of policy or contract delivery.

E. Except as provided in Section 5.C., in connection with a replacement transaction the producer shall submit to the insurer to which an application for a policy or contract is presented, a copy of each document

required by this section, a statement identifying any preprinted or electronically presented company approved sales materials used, and copies of any individualized sales materials, including any illustrations related to the specific policy or contract purchased.

**Section 4. Duties of Insurers that Use Producers**

Each insurer shall:

A. Maintain a system of supervision and control to insure compliance with the requirements of this regulation that shall include at least the following:

(1) Inform its producers of the requirements of this regulation and incorporate the requirements of this regulation into all relevant producer training manuals prepared by the insurer;

(2) Provide to each producer a written statement of the company's position with respect to the acceptability of replacements providing guidance to its producer as to the appropriateness of these transactions;

(3) A system to review the appropriateness of each replacement transaction that the producer does not indicate is in accord with Paragraph (2) above;

(4) Procedures to confirm that the requirements of this regulation have been met; and

(5) Procedures to detect transactions that are replacements of existing policies or contracts by the existing insurer, but that have not been reported as such by the applicant or producer. Compliance with this regulation may include, but shall not be limited to, systematic customer surveys, interviews, confirmation letters, or programs of internal monitoring;

B. Have the capacity to monitor each producer's life insurance policy and annuity contract replacements for that insurer, and shall produce, upon request, and make such records available to the Insurance Department. The capacity to monitor shall include the ability to produce records for each producer's:

(1) Life replacements, including financed purchases, as a percentage of the producer's total annual sales for life insurance;

(2) Number of lapses of policies by the producer as a percentage of the producer's total annual sales for life insurance;

(3) Annuity contract replacements as a percentage of the producer's total annual annuity contract sales;

(4) Number of transactions that are unreported replacements of existing policies or contracts by the existing insurer detected by the company's monitoring system as required by Subsection A.(5) of this section; and

(5) Replacements, indexed by replacing producer and existing insurer;

C. Require with or as a part of each application for life insurance or an annuity a signed statement by both the applicant and the producer as to whether the applicant has existing policies or contracts;

D. Require with each application for life insurance or an annuity that indicates an existing policy or contract a completed notice regarding replacements as contained in Appendix A;

E. When the applicant has existing policies or contracts, each insurer shall be able to produce copies of any sales material required by Section 3.E., the basic illustration and any supplemental illustrations related to the specific policy or contract that is purchased, and the producer's and applicant's signed statements with respect to financing and replacement for at least five (5) years after the termination or expiration of the proposed policy or contract;

F. Ascertain that the sales material and illustrations required by Section 3.E. of this regulation meet the requirements of this regulation and are complete and accurate for the proposed policy or contract;

G. If an application does not meet the requirements of this regulation, notify the producer and applicant and fulfill the outstanding requirements; and

H. Maintains records in paper, photograph, microprocess, magnetic, mechanical or electronic media or by any process that accurately reproduces the actual document.

**Section 5. Duties of Replacing Insurers that Use Producers**

A. Where a replacement is involved in the transaction, the replacing insurer shall:

(1) Verify that the required forms are received and are in compliance with this regulation;

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(2) Notify any other existing insurer that may be affected by the proposed replacement within five (5) business days of receipt of a completed application indicating replacement or when the replacement is identified if not indicated on the application, and mail a copy of the available illustration or policy summary for the proposed policy or available disclosure document for the proposed contract within five (5) business days of a request from an existing insurer;

(3) Be able to produce copies of the notification regarding replacement required in Section 3.B., indexed by producer, for at least five (5) years or until the next regular examination by the Insurance Department of a company's state of domicile, whichever is later; and

(4) Provide to the policy or contract owner notice of the right to return the policy or contract within thirty (30) days of the delivery of the contract and receive an unconditional full refund of all premiums or considerations paid on it, including any policy fees or charges or, in the case of a variable or market value adjustment policy or contract, a payment of the cash surrender value provided under the policy or contract plus the fees and other charges deducted from the gross premiums or considerations or imposed under such policy or contract; such notice may be included in Appendix A or C.

B. In transactions where the replacing insurer and the existing insurer are the same or subsidiaries or affiliates under common ownership or control, allow credit for the period of time that has elapsed under the replaced policy's or contract's incontestability and suicide period up to the face amount of the existing policy or contract. With regard to financed purchases, the credit may be limited to the amount the face amount of the existing policy is reduced by the use of existing policy values to fund the new policy or contract.

C. If an insurer prohibits the use of sales material other than that approved by the company, as an alternative to the requirements made of an insurer pursuant to Section 3.E., the insurer may:

(1) Require with each application a statement signed by the producer that:

(a) Represents that the producer used only company-approved sales material; and

(b) States that copies of all sales material were left with the applicant in accordance with Section 3.D.;

and

(2) Within ten (10) days of the issuance of the policy or contract:

(a) Notify the applicant by sending a letter or by verbal communication with the applicant by a person whose duties are separate from the marketing area of the insurer, that the producer has represented that copies of all sales material have been left with the applicant in accordance with Section 3.D.;

(b) Provide the applicant with a toll free number to contact company personnel involved in the compliance function if such is not the case; and

(c) Stress the importance of retaining copies of the sales material for future reference; and

(3) Be able to produce a copy of the letter or other verification in the policy file for at least five (5) years after the termination or expiration of the policy or contract.

### Section 6. Duties of the Existing Insurer

Where a replacement is involved in the transaction, the existing insurer shall:

A. Retain and be able to produce all replacement notifications received, indexed by replacing insurer, for at least five (5) years or until the conclusion of the next regular examination conducted by the Insurance Department of its state of domicile, whichever is later;

B. Send a letter to the policy or contract owner of the right to receive information regarding the existing policy or contract values including, if available, an in force illustration or policy summary if an in force illustration cannot be produced within five (5) business days of receipt of a notice that an existing policy or contract is being replaced. The information shall be provided within five (5) business days of receipt of the request from the policy or contract owner;

C. Upon receipt of a request to borrow, surrender or withdraw any policy values, send a notice, advising the policy owner that the release of policy values may affect the guaranteed elements, non-guaranteed elements, face amount or surrender value of the policy from which the values are released. The notice shall be sent separate from the check if the check is sent to anyone other than the policy owner. In the case of consecutive automatic premium loans, the insurer is only required to send the notice at the time of the first loan.

## Section 7. Duties of Insurers with Respect to Direct Response Solicitations

A. In the case of an application that is initiated as a result of a direct response solicitation, the insurer shall require, with or as part of each completed application for a policy or contract, a statement asking whether the applicant, by applying for the proposed policy or contract, intends to replace, discontinue or change an existing policy or contract. If the applicant indicates a replacement or change is not intended or if the applicant fails to respond to the statement, the insurer shall send the applicant, with the policy or contract, a notice regarding replacement in Appendix B, or other substantially similar form approved by the director.

B. If the insurer has proposed the replacement or if the applicant indicates a replacement is intended and the insurer continues with the replacement, the insurer shall:

(1) Provide to applicants or prospective applicants with the policy or contract a notice, as described in Appendix C, or other substantially similar form approved by the director. In these instances the insurer may delete the references to the producer, including the producer's signature, and references not applicable to the product being sold or replaced, without having to obtain approval of the form from the director. The insurer's obligation to obtain the applicant's signature shall be satisfied if it can demonstrate that it has made a diligent effort to secure a signed copy of the notice referred to in this paragraph. The requirement to make a diligent effort shall be deemed satisfied if the insurer includes in the mailing a self-addressed postage prepaid envelope with instructions for the return of the signed notice referred to in this section; and

(2) Comply with the requirements of Section 5.A.(2), if the applicant furnishes the names of the existing insurers, and the requirements of Sections 5.A.(3), 5.A.(4) and 5.B.

## Section 8. Violations and Penalties

A. Any failure to comply with this regulation shall be considered a violation of S.C. Code Ann. 38-57-10 et seq. Examples of violations include:

- (1) Any deceptive or misleading information set forth in sales material;
- (2) Failing to ask the applicant in completing the application the pertinent questions regarding the possibility of financing or replacement;
- (3) The intentional incorrect recording of an answer;
- (4) Advising an applicant to respond negatively to any question regarding replacement in order to prevent notice to the existing insurer; or
- (5) Advising a policy or contract owner to write directly to the company in such a way as to attempt to obscure the identity of the replacing producer or company.

B. Policy and contract owners have the right to replace existing life insurance policies or annuity contracts after indicating in or as a part of applications for new coverage that replacement is not their intention; however, patterns of such action by policy or contract owners of the same producer shall be deemed *prima facie* evidence of the producer's knowledge that replacement was intended in connection with the identified transactions, and these patterns of action shall be deemed *prima facie* evidence of the producer's intent to violate this regulation.

C. Where it is determined that the requirements of this regulation have not been met the replacing insurer shall provide to the policy owner an in force illustration if available or policy summary for the replacement policy or available disclosure document for the replacement contract and the appropriate notice regarding replacements in Appendix A or C.

D. Violations of this regulation shall subject the violators to penalties that may include the revocation or suspension of a producer's or company's license and monetary fines. In addition, where the director has determined that the violations were material to the sale, the insurer may be required to make restitution, restore policy or contract values and pay interest at the legal rate on the amount refunded in cash.

## Section 9. Severability

If any section or portion of a section of this regulation, or its applicability to any person or circumstances, is held invalid by a court, the remainder of this regulation, or the applicability of its provisions to other persons, shall not be affected.

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Section 10. Effective Date

This regulation shall be effective ninety days after final publication in the State Register.

**APPENDIX A**

**IMPORTANT NOTICE:  
REPLACEMENT OF LIFE INSURANCE OR ANNUITIES**

This document must be signed by the applicant and the producer, if there is one, and a copy left with the applicant.

You are contemplating the purchase of a life insurance policy or annuity contract. In some cases this purchase may involve discontinuing or changing an existing policy or contract. If so, a replacement is occurring. Financed purchases are also considered replacements.

A replacement occurs when a new policy or contract is purchased and, in connection with the sale, you discontinue making premium payments on the existing policy or contract, or an existing policy or contract is surrendered, forfeited, assigned to the replacing insurer, or otherwise terminated or used in a financed purchase.

A financed purchase occurs when the purchase of a new life insurance policy involves the use of funds obtained by the withdrawal or surrender of or by borrowing some or all of the policy values, including accumulated dividends, of an existing policy to pay all or part of any premium or payment due on the new policy. A financed purchase is a replacement.

You should carefully consider whether a replacement is in your best interests. You will pay acquisition costs and there may be surrender costs deducted from your policy or contract. You may be able to make changes to your existing policy or contract to meet your insurance needs at less cost. A financed purchase will reduce the value of your existing policy and may reduce the amount paid upon the death of the insured.

We want you to understand the effects of replacements before you make your purchase decision and ask that you answer the following questions and consider the questions on the back of this form.

1. Are you considering discontinuing making premium payments, surrendering, forfeiting, assigning to the insurer, or otherwise terminating your existing policy or contract?  
\_\_\_ YES \_\_\_ NO

2. Are you considering using funds from your existing policies or contracts to pay premiums due on the new policy or contract? \_\_\_ YES \_\_\_ NO

If you answered "yes" to either of the above questions, list each existing policy or contract you are contemplating replacing (include the name of the insurer, the insured or annuitant, and the policy or contract number if available) and whether each policy or contract will be replaced or used as a source of financing:

INSURER NAME	CONTRACT OR POLICY #	INSURED OR ANNUITANT	REPLACED (R) OR FINANCING (F)
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- 1.
- 2.
- 3.



Make sure you know the facts. Contact your existing company or its agent for information about the old policy or contract. If you request one, an in force illustration, policy summary or available disclosure documents must be sent to you by the existing insurer. Ask for and retain all sales material used by the agent in the sales presentation. Be sure that you are making an informed decision.

The existing policy or contract is being replaced because \_\_\_\_\_.

I declare that the responses herein are, to the best of my knowledge, accurate:

\_\_\_\_\_  
Applicant's Signature and Printed Name Date

\_\_\_\_\_  
Producer's Signature and Printed Name Date

I do not want this notice read aloud to me. \_\_\_\_ (Applicants must initial only if they do not want the notice read aloud.)

A replacement may not be in your best interest, or your decision could be a good one. You should make a careful comparison of the costs and benefits of your existing policy or contract and the proposed policy or contract. One way to do this is to ask the company or agent that sold you your existing policy or contract to provide you with information concerning your existing policy or contract. This may include an illustration of how your existing policy or contract is working now and how it would perform in the future based on certain assumptions. Illustrations should not, however, be used as a sole basis to compare policies or contracts. You should discuss the following with your agent to determine whether replacement or financing your purchase makes sense:

PREMIUMS: Are they affordable?  
Could they change?  
You're older—are premiums higher for the proposed new policy?  
How long will you have to pay premiums on the new policy? On the old policy?

POLICY VALUES: New policies usually take longer to build cash values and to pay dividends.  
Acquisition costs for the old policy may have been paid; you will incur costs for the new one.  
What surrender charges do the policies have?  
What expense and sales charges will you pay on the new policy?  
Does the new policy provide more insurance coverage?

INSURABILITY: If your health has changed since you bought your old policy, the new one could cost you more, or you could be turned down.  
You may need a medical exam for a new policy.  
Claims on most new policies for up to the first two years can be denied based on inaccurate statements.  
Suicide limitations may begin anew on the new coverage.

IF YOU ARE KEEPING THE OLD POLICY AS WELL AS THE NEW POLICY:

How are premiums for both policies being paid?  
How will the premiums on your existing policy be affected?  
Will a loan be deducted from death benefits?  
What values from the old policy are being used to pay premiums?

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IF YOU ARE SURRENDERING AN ANNUITY OR INTEREST SENSITIVE LIFE PRODUCT:

- Will you pay surrender charges on your old contract?
- What are the interest rate guarantees for the new contract?
- Have you compared the contract charges or other policy expenses?

OTHER ISSUES TO CONSIDER FOR ALL TRANSACTIONS:

- What are the tax consequences of buying the new policy?
- Is this a tax free exchange? (See your tax advisor.)
- Is there a benefit from favorable “grandfathered” treatment of the old policy under the federal tax code?
- Will the existing insurer be willing to modify the old policy?
- How does the quality and financial stability of the new company compare with your existing company?

## **APPENDIX B**

### **NOTICE REGARDING REPLACEMENT REPLACING YOUR LIFE INSURANCE POLICY OR ANNUITY?**

Are you thinking about buying a new life insurance policy or annuity and discontinuing or changing an existing one? If you are, your decision could be a good one—or a mistake. You will not know for sure unless you make a careful comparison of your existing benefits and the proposed policy or contract’s benefits.

Make sure you understand the facts. You should ask the company or agent that sold you your existing policy or contract to give you information about it.

Hear both sides before you decide. This way you can be sure you are making a decision that is in your best interest.

## **APPENDIX C**

### **IMPORTANT NOTICE: REPLACEMENT OF LIFE INSURANCE OR ANNUITIES**

You are contemplating the purchase of a life insurance policy or annuity contract. In some cases this purchase may involve discontinuing or changing an existing policy or contract. If so, a replacement is occurring. Financed purchases are also considered replacements.

A replacement occurs when a new policy or contract is purchased and, in connection with the sale, you discontinue making premium payments on the existing policy or contract, or an existing policy or contract is surrendered, forfeited, assigned to the replacing insurer, or otherwise terminated or used in a financed purchase.

A financed purchase occurs when the purchase of a new life insurance policy involves the use of funds obtained by the withdrawal or surrender of or by borrowing some or all of the policy values, including accumulated dividends, of an existing policy, to pay all or part of any premium or payment due on the new policy. A financed purchase is a replacement.

You should carefully consider whether a replacement is in your best interests. You will pay acquisition costs and there may be surrender costs deducted from your policy or contract. You may be able to make changes to

your existing policy or contract to meet your insurance needs at less cost. A financed purchase will reduce the value of your existing policy and may reduce the amount paid upon the death of the insured.

We want you to understand the effects of replacements and ask that you answer the following questions and consider the questions on the back of this form.

1. Are you considering discontinuing making premium payments, surrendering, forfeiting, assigning to the insurer, or otherwise terminating your existing policy or contract?  
 YES  NO

2. Are you considering using funds from your existing policies or contracts to pay premiums due on the new policy or contract?  YES  NO

Please list each existing policy or contract you are contemplating replacing (include the name of the insurer, the insured, and the policy or contract number if available) and whether each policy or contract will be replaced or used as a source of financing:

INSURER NAME	CONTRACT OR POLICY #	INSURED OR ANNUITANT	REPLACED (R) OR FINANCING (F)
1.			
2.			
3.			

Make sure you know the facts. Contact your existing company or its agent for information about the old policy or contract. If you request one, an in force illustration, policy summary or available disclosure documents must be sent to you by the existing insurer. Ask for and retain all sales material used by the agent in the sales presentation. Be sure that you are making an informed decision.

I declare that the responses herein are, to the best of my knowledge, accurate:

\_\_\_\_\_ Date

Applicant's Signature and Printed Name

A replacement may not be in your best interest, or your decision could be a good one. You should make a careful comparison of the costs and benefits of your existing policy or contract and the proposed policy or contract. One way to do this is to ask the company or agent that sold you your existing policy or contract to provide you with information concerning your existing policy or contract. This may include an illustration of how your existing policy or contract is working now and how it would perform in the future based on certain assumptions. Illustrations should not, however, be used as a sole basis to compare policies or contracts. You should discuss the following with your agent to determine whether replacement or financing your purchase makes sense:

**PREMIUMS:** Are they affordable?  
 Could they change?  
 You're older—are premiums higher for the proposed new policy?  
 How long will you have to pay premiums on the new policy? On the old policy?

**POLICY VALUES:** New policies usually take longer to build cash values and to pay dividends.  
 Acquisition costs for the old policy may have been paid; you will incur costs for the new one.  
 What surrender charges do the policies have?  
 What expense and sales charges will you pay on the new policy?  
 Does the new policy provide more insurance coverage?

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**INSURABILITY:** If your health has changed since you bought your old policy, the new one could cost you more, or you could be turned down.  
You may need a medical exam for a new policy.  
Claims on most new policies for up to the first two years can be denied based on inaccurate statements.  
Suicide limitations may begin anew on the new coverage.

**IF YOU ARE KEEPING THE OLD POLICY AS WELL AS THE NEW POLICY:**

How are premiums for both policies being paid?  
How will the premiums on your existing policy be affected?  
Will a loan be deducted from death benefits?  
What values from the old policy are being used to pay premiums?

**IF YOU ARE SURRENDERING AN ANNUITY OR INTEREST SENSITIVE LIFE PRODUCT:**

Will you pay surrender charges on your old contract?  
What are the interest rate guarantees for the new contract?  
Have you compared the contract charges or other policy expenses?

**OTHER ISSUES TO CONSIDER FOR ALL TRANSACTIONS:**

What are the tax consequences of buying the new policy?  
Is this a tax free exchange? (See your tax advisor.)  
Is there a benefit from favorable “grandfathered” treatment of the old policy under the federal tax code?  
Will the existing insurer be willing to modify the old policy?  
How does the quality and financial stability of the new company compare with your existing company?

### **Fiscal Impact Statement:**

There will be no increased costs to the state or its political subdivisions.

### **Statement of Rationale:**

The proposed amendments to Regulation 69-12.1 provide additional safeguards for consumers when a proposed insurance transaction involves the replacement of an existing life insurance policy or annuity. The amendments require recordkeeping by both insurers and producers involving the transaction and notices to be provided to the consumer and to the existing insurer by the replacing insurer. The regulation also provides for the exception of replacement requirements for term life conversions between affiliated companies. These revisions put inter-affiliate term conversions on the same footing as exchanges between the same insurer—internal, intra-company conversions thereby allowing for a smooth transition from term ownership to a permanent policy that may provide added protection and potential cash value accumulation to the consumer.

Document No. 3205  
DEPARTMENT OF INSURANCE  
CHAPTER 69

Statutory Authority: 1976 Code Sections 1-23-110 et seq., 12-6-3660 and 38-3-110

69-75. Tax Credits for Fortification Measures

**Synopsis:**

The Omnibus Coastal Property Insurance Reform Act of 2007 amended Article 25, Chapter 6, Title 12 of the S.C. Code Ann. by adding Section 12-6-3660 to require that an individual taxpayer is allowed a credit against the tax imposed pursuant to Section 12-6-510 for costs incurred to retrofit a structure qualifying as the taxpayer's legal residence pursuant to Section 12-43-220(c) to make it more resistant to loss due to hurricane, rising floodwater, or other catastrophic windstorm event. Section 12-6-3665 provides that an individual taxpayer is allowed a credit from the income tax imposed pursuant to Section 12-6-510 for South Carolina state sales or use taxes paid on purchases of tangible personal property used to retrofit the individual's legal residence pursuant to Section 12-6-3660. The Act provides the authority to the Department of Insurance to define by regulation how these fortification measures qualify for income tax credits and the evidence that the individual taxpayer shall maintain and provide to claim the credit. The proposed regulation provides detailed information about the fortification measures that qualify for the credits.

**Instructions:**

Add Regulation 69-75, Tax Credits for Fortification Measures, as drafted below, to the South Carolina Code of Regulations.

**Text:**

69-75. Tax Credits for Fortification Measures

Section 1. Purpose and Qualifying Fortification Measures

A. The purpose of this regulation is to set forth the fortification measures that qualify for the state income tax credit allowed pursuant to Section 12-6-3660.

B. An individual taxpayer is allowed a state income tax credit for costs incurred to implement the fortification measures outlined in this regulation. The fortification measures must be made to a structure qualifying as the taxpayer's legal residence pursuant to Section 12-43-220(c). The tax credit allowed pursuant to Section 12-6-3660 for any taxable year must not exceed the lesser of:

- (1) twenty-five percent of the cost incurred; or
- (2) one thousand dollars

for a qualifying residence regardless of the number of taxpayers residing in the residence.

C. The standards which must be met by an individual taxpayer to qualify for state income tax credits for costs to fortify the taxpayer's legal residence pursuant to S.C. Code Section 12-6-3660 or sales and use tax credits pursuant to S.C. Code Section 12-6-3665 are the same as those required under the SC Safe Home Program that are contained in the *South Carolina Safe Home Resource Document for Mitigation Techniques* dated July 2008, developed for the SC Safe Home Program by the Federal Alliance for Safe Homes and available at [www.scsafehome.com](http://www.scsafehome.com). That document is incorporated herein by reference and available on the Department's website. Fortification measures must be accomplished in accordance with the standards contained in the *South Carolina Safe Home Resource Document for Mitigation Techniques*. All products must have an ICC Evaluation Services Legacy Report or other appropriate test reports acceptable to the local building officials for the intended use.

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The South Carolina Department of Insurance must review and update the manual as necessary to comply with changes in building code standards, mitigation measures or other applicable provisions of state or federal law.

### Section 2. Evidence

A. To qualify for the tax credit, the individual taxpayer must maintain evidence that the fortification measures were implemented and costs incurred. Evidence necessary to prove the taxpayer is entitled to the credit must be provided to the Department of Revenue upon request.

B. The acceptable forms of evidence include:

(1) A written certification or a report (with certification) from a licensed professional with expertise in construction techniques, building design or property inspection or appraisal including, but not limited to an: architect; appraiser; building inspector; or contractor that the fortification measure has been implemented in accordance with applicable standards. Copies of the applicable receipts must accompany the certification or report; or

(2) An Affidavit from the individual taxpayer certifying that the fortification measures have been implemented. Copies of the applicable receipts must accompany the affidavit.

### **Fiscal Impact Statement:**

There will be no increased costs to the state or its political subdivisions. There may be a reduction in income tax collected by the state from those taxpayers who qualify for the credit. It is believed this will be offset by the anticipated benefit to the state in reduced damage from windstorm. Any such decrease will positively affect the state by reducing debris, etc. from damaged property, and will benefit the public by reducing the possibility of death, injury, and homelessness from hurricanes or other catastrophic windstorm events.

### **Statement of Rationale:**

This proposed regulation is a part of a comprehensive initiative to address the property insurance issues in South Carolina. A healthy insurance marketplace is imperative to the well-being of our state's economy. Significant hurricane losses by the insurance industry and predictions for above-average hurricane frequency and severity have contributed to the decline of the property insurance market in South Carolina. Strengthening of residential structures should lessen the extent of damage to homes and reduce the loss of life or injury due to hurricanes or other catastrophic windstorm events.

Document No. 4018

**DEPARTMENT OF LABOR, LICENSING AND REGULATION**  
**BOARD OF REGISTRATION FOR**  
**PROFESSIONAL ENGINEERS AND SURVEYORS**  
CHAPTER 49

Statutory Authority: 1976 Code Sections 40-1-70, 40-22-60 and 40-22-130

Chapter 49. Board of Registration for Professional Engineers and Surveyors

### **Synopsis:**

The South Carolina Board of Registration for Professional Engineers and Surveyors is amending existing regulations to be consistent with statutory changes that became effective June 6, 2007 (2007 Act 58). The Board also proposes changes to reflect modernization of professional practice in both engineering and surveying.

**Instructions:**

The following sections of regulation 49-100 through 49-610 are modified as provided below.

**Text:**

## ARTICLE 1.

## ORGANIZATION, ADMINISTRATION AND PROCEDURE

## 49-100. Definitions.

A. Definitions found in Section 40-22-20 of the Code of Laws of South Carolina apply to this Chapter.

B. The following definitions are terms used in this Chapter in addition to those included in Section 40-22-20 of the Code of Laws of South Carolina:

- (1) "CEAB" means the Canadian Engineering Accreditation Board.
- (2) "Comity Registration" means the courteous recognition and extension of license privileges in this State to engineers and surveyors licensed in other states.
- (3) "Dual License Holder" means a person who is licensed as an engineer and a surveyor.
- (4) "Model Law Engineer" refers to a person who meets the following criteria:
  - (a) Graduation from an engineering program accredited by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology (EAC/ABET).
  - (b) Four years of qualifying experience after graduation.
  - (c) Passing of a NCEES Fundamentals of Engineering Examination (FE).
  - (d) Passing of a NCEES Principles and Practice of Engineering Examination (PE).
  - (e) Status in good standing as a registrant in the NCEES Records Program, and
  - (f) A record clear on any license violations or sanctions by an engineering board.
- (5) "NCEES" means the National Council of Examiners for Engineering and Surveying.
- (6) "Washington Accord" refers to an international agreement providing for the mutual recognition of engineering education program accreditation by and between EAC/ABET and engineering education accrediting bodies of other nations holding membership in the Washington Accord.

## 49-101. Board Rules of Order/Procedures and Seal of Board.

A. Rules of Order/Procedures. All proceedings of the Board shall be governed by provisions set forth in the Administrative Procedures Act.

B. Description of Seal of Board. The seal of the Board shall be circular in form and 1 7/8 inches in diameter. Concentric with the outside of the Seal there shall be a circle 1 1/4 inches in diameter, within which there shall be a replica of the device used on the Seal of the State of South Carolina, and in the annular space between the circle and the outside of the Seal there shall appear the words "State Board of Registration for Professional Engineers and Surveyors." All official papers, registration certificates, and other formal documents of the Board shall bear the imprint of this Seal.

## 49-102. Use of Forms/Applications.

## A. Forms.

(1) All applications for engineering and surveying licensure and certificate of authorization shall be made on a form provided by the Board, and no applications made otherwise will be accepted.

(2) Applications not completed in accordance with the applicable printed instructions will be returned to the applicant. Withholding information, misrepresentation, or untrue statements will be cause for denial of application.

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### B. Documentation.

(1) All information given on an application form must be documented. The applicant is required to provide the names and current mailing addresses of five references having personal knowledge of applicant's character and professional reputation, and of employers or supervisors who can verify applicant's work experience. It is the applicant's responsibility to see that references return the forms promptly to the Board office.

(a) Engineering. At least three of the character references shall be professional engineers.

(b) Land Surveying. At least three of the character references shall be from professional surveyors.

(2) Official transcripts are required showing subjects and grades of all scholastic work which the applicant wishes to claim, degree issued and date of issuance. It is the responsibility of the applicant to see that such a record is sent from the institution directly to the Board office. A failure to provide such transcript directly from the institution, whether foreign or domestic, may be grounds for rejection of the application.

### 49-103. Fees.

A. The Board will charge fees sufficient to cover expenses for the following:

(1) Application Fee, Individual License: not to exceed \$200.

(2) Application Fee, Certificate of Authorization: not to exceed \$300.

(3) Examination Fee: not to exceed \$150, if applicable.

(4) Certificate Fee: not to exceed \$35 for individuals or \$50 for firms.

(5) Biennial Renewal Fee, Individual: not to exceed \$200.

(6) Biennial Renewal Fee, Firm: not to exceed \$400.

(7) Temporary Permits: not to exceed \$200 for individuals and \$300 for firms.

B. No fee, or any part thereof, paid by any applicant for application, examination and/or registration will be refunded once an application has been submitted to the Board for processing. Refunds will not be made.

### 49-104. Examinations--General.

A. Classifications--Engineering Examinations.

(1) NCEES Fundamentals of Engineering (FE).

(2) NCEES Principles and Practice of Engineering (PE).

(3) NCEES Special Structural Engineering Examinations.

B. Classifications--Surveying Examinations.

(1) NCEES Fundamentals of Surveying (FS).

(2) NCEES Principles and Practice of Surveying (PS).

(3) S.C. State Specific Surveying Examination (State-S).

(4) TIER B Land Surveying (State-TIER B LS).

(5) S.C. Board Rules and Regulations.

(6) Principles and Practice of Photogrammetric Surveying.

(7) Principles and Practice of GIS Surveying.

C. Examination for Record Purposes.

(1) Any engineer registered by this Board may take for record purposes one or more of the listed engineering examinations upon payment of a fee as established by the Board.

(2) Any surveyor registered by this Board may take for record purposes one or more of the listed surveying examinations upon payment of a fee as established by the Board.

(3) Failure to pass an examination will not affect current registration.

D. Re-Examination.

(1) An applicant who has failed the same topical examination two times shall provide evidence satisfactory to the Board that steps have been taken in preparation for a third examination on the same topical subject.

(2) An application update will be required of any applicant who has failed the same topical examination three times. The applicant must also provide documentation that additional study satisfactory to the Board was taken in preparation for further examination on the same topical subject.



49-105. License Expiration, Renewal and Reinstatement--Individuals.

A. Expiration and Renewal.

(1) The privilege to practice in any category or tier as a registered professional engineer or surveyor in South Carolina expires on June 30, biennially in even numbered years unless the license is renewed. Every Registered Professional Engineer and Surveyor who elects to continue the practice of his profession shall complete and submit an application for renewal of licensure and pay the appropriate fee by June 30.

(2) Renewal notices will be mailed to the licensee's address on record with this Board in May each biennial year; however, it is the licensee's responsibility to renew his license prior to the official expiration date of June 30.

B. Reinstatement.

(1) A licensee whose license has lapsed and who can truthfully certify that he or she has not been engaged in the practice of engineering or surveying in South Carolina during the period the certificate was not in a current status, barring any other irregularities, shall be reinstated and retain the original registration number upon payment of the renewal fees and penalties. A licensee whose license has lapsed more than one year may be required to take and pass examinations as required by the Board.

(2) Those persons who cannot certify that they have refrained from practicing their profession in this State during the period in which their license lapsed may be required to show cause to the Board why their license should not be disciplined.

(3) Any person reinstating an expired registration will be required to meet the continuing professional competency requirements.

49-106. COA Expiration, Renewal and Reinstatement--Firms.

A. Expiration and Renewal.

(1) Certificates of Authorization must be renewed biennially to remain in effect. Unless renewed a Certificate of Authorization shall expire biennially on March 31 of odd numbered years. A firm whose certificate has expired may not offer or engage in engineering or surveying services until the Certificate of Authorization has been renewed or until a new certificate has been issued.

(2) Renewal notices will be mailed to the firm's address on record with this Board in January each biennial year; however, it is the firm's responsibility to renew its license prior to the official expiration date of March 31.

(3) The completed renewal form signed and sworn to by the applicant must be filed with the Board office on or before March 31 of each odd numbered year.

B. Reinstatement.

(1) A Certificate of Authorization will become invalid upon a failure to renew by April 1 of the biennial renewal year. The Certificate may be reinstated by the Board at any time during the following three months on payment of the biennial renewal fee plus late penalty. The penalties are computed in the same manner as prescribed for individual licensees who fail to renew.

(2) In the case of failure to reinstate within three months from the date of expiration, the Certificate of Authorization will be reissued only upon submittal of a new application, accompanied by the application fee, and approval by the Board.

C. Resident Professional Requirement.

(1) A Certificate of Authorization (COA) is automatically suspended when the firm fails to comply with the resident professional requirement as provided for in Section 40-22-250 of the Practice Act.

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### ARTICLE 2.

#### GENERAL PROVISIONS

##### 49-200. Professional Engineer Licensure Requirements.

###### A. Education Requirements.

(1) The Board will recognize the degrees of Master of Engineering or Master of Science in Engineering in a program accredited by EAC/ABET at either the baccalaureate or masters level as fulfilling the education requirements in satisfaction of the qualifications detailed in Section 40-22-220.

(2) The Board will recognize degrees from an engineering program evaluated as accredited by a foreign accreditation board or other authority recognized by ABET as having accreditation criteria substantially the same as that established by EAC/ABET. Engineering degree programs in this category include the following:

(a) Four-year engineering degree accredited by the Canadian Engineering Accreditation Board (CEAB).

(b) Four-year engineering degree from an accredited program in other countries listed in the ABET published "Washington Accord" document.

(c) Courses taken for credit and appearing on official college or university transcripts must be evaluated by a Board approved Education Consultant. The purpose of such evaluations shall be to determine whether or not the curriculum presented by the applicant complies substantially with accreditation criteria of EAC/ABET. Programs determined by the Board, based upon the evaluations, to be substantially equivalent to those accredited by EAC/ABET will be considered as fulfilling the education requirements.

(3) In addition to transcripts submitted for evaluation by the Education Consultant, an applicant shall have the academic institution furnish the Board such supporting documentation as necessary for a proper and sufficient evaluation.

###### B. Experience Requirements.

###### (1) General.

(a) An applicant must have completed the qualifying experience required by the Board by the application deadline. Experience cannot be anticipated. Experience gained prior to completion of degree requirements will not be accepted as qualifying experience.

(b) Qualifying experience must be progressive and of an increasing standard of quality and responsibility after graduation. Where guidelines for qualifying experience are published by NCEES, such guidelines may be used by the Board to evaluate experience of the applicant.

###### (2) Engineering Experience.

(a) The applicant should have meaningful design experience under the supervision of a registered professional engineer in designing components or processes that meet a public need. This experience should include exposure to the formation of design problem statements and specifications, consideration of alternative solutions, feasibility considerations, analytical calculations and detailed systems descriptions. If the experience was not gained under the direct supervision of a registered professional engineer, then the indirect supervision should be explained with clarification of the degree of supervision received.

(b) Successful completion of a Master's degree in a Board approved engineering curriculum may be accepted as one year of equivalent engineering experience credit. The completion of a PhD. in a Board approved engineering curriculum may be accepted as two years of equivalent experience credit. However, in no case will more than two years of equivalent engineering experience credit be given for post baccalaureate education.

(c) For teaching experience to be considered by the Board, the engineer applicant must have taught design courses acceptable by the Board in an engineering curriculum accredited by ABET.

(d) Military experience must have been spent in engineering and of a character substantially equivalent to that required in the civilian sector for like work.

(e) For sales experience to be considered by the Board, the engineer applicant must demonstrate conclusively that engineering principles and engineering knowledge were actually employed. The mere selection of data or equipment from a company catalogue or a similar publication will not be considered qualifying engineering experience.

(f) Experience in construction supervision must show proficiency in engineering computational and problem-solving skills in assuring compliance with specifications and designs.

(g) The Board will not accept the mere execution as a contractor of work designed by a registered professional engineer, or the supervision of the construction documents, or similar non-engineering tasks as qualifying engineering experience.

(h) Industrial experience should be directed toward the identification and solution of practice problems in the applicant's area of engineering specialization. This experience should include engineering analysis of existing physical systems and the design of new ones.

(3) Engineering Experience.

(a) Qualifying experience must be progressive and exhibit an increasing standard of advancement in the application of technological principles.

(b) Experience must be gained by working under the supervision of a legally practicing engineer or on engineering assignments which exhibit an increasing standard of assigned responsibility.

(c) Industrial experience leading to registration as an associate professional engineer should be directed toward the identification and solution of practical problems in the applicant's area of technological specialization of engineering principles.

(d) Work as laboratory or field technicians where such work is merely the conduct of routine explorations or data acquisition activities shall not be considered as qualifying. In order to be qualifying, the experience should show a demonstrated and satisfactory use of basic engineering computational and problem-solving skills.

C. Examination Requirements.

(1) Engineer-in-Training (EIT).

(a) An applicant applying for certification as an engineer-in-training must take and pass one of the written examinations on the Fundamentals of Engineering (FE), prepared and graded by the NCEES.

(b) The Board may, at its discretion, exempt an applicant from taking the FE examination. These exemptions include the following:

1. An applicant who has earned a doctorate degree in engineering in which the undergraduate degree in the same field of study is accredited by EAC/ABET, and is otherwise qualified under the provisions of the South Carolina Code of Laws at the time the application is received.

2. An applicant with more than fifteen years of acceptable experience after date of accredited degree or who has been licensed in another jurisdiction not less than 12 years, and is otherwise qualified under the provisions of Section 40-22-220 of the Practice Act, at the time the application is received.

49-201. Professional Surveyor Licensure Requirements.

A. Qualifying Experience and Documentation.

(1) Experience must be obtained under the supervision of a registered professional surveyor and must be of a character satisfactory to the Board.

(2) Qualifying experience approved by the Board is experience beyond elementary surveying duties such as chaining, rodman, and bush cutting duties. In order for work to be considered as qualifying experience, an advanced level of responsibility must have been placed on the applicant. Responsibility should involve mature judgment and expertise gained in such job assignments as instrument man, assistant crew chief or crew chief. Work claimed as qualifying experience should demonstrate a sound working knowledge of surveying with respect to research (records and field), instrumentation, note-keeping, calculations and mapping.

(3) An experience record in boundary and route surveying, topographical surveying, construction surveying, control/geodetic surveying, and rights-of-way delineation is beneficial to the applicant in the Board's evaluation of the application. Recognizing that boundary surveys are the types of surveys which more critically affect the public welfare, experience in boundary surveys should constitute a significant portion of the applicant's experience record and will be given more weight by the Board in considering an applicant's qualifications for licensure.

(4) An applicant must submit copies of three different maps and plats of land surveys on which he has worked. The documents must be signed by the professional land surveyor who supervised the work and contain a statement describing that part of the work done by the applicant. Submitted plats and maps must

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meet the requirements of the Standards of Practice Manual for Surveying in South Carolina, Chapter 49, Article 4, of the Code of Regulations, in effect at the time of licensure.

(5) An applicant must submit five references as to the applicant's character and quality of work, three or more must be registered land surveyors having personal knowledge of the applicant's qualifications.

### B. Examination Requirements--Land Boundary Surveyor.

(1) An applicant applying for certification as land surveyor-in-training must take and pass a written examination on the Fundamentals of Surveying (FS), prepared and graded by the NCEES.

(2) An applicant applying for licensure as a TIER A land boundary surveyor must have taken and passed the FS written examination and must take and pass the Principles and Practice of Surveying (PS), prepared and graded by the NCEES, and a South Carolina State Specific Surveying examination.

(3) A person licensed as a professional land boundary surveyor may practice as a professional photogrammetric surveyor only by meeting the requirements as described in the section R.49-201C of this Chapter, and may practice as a professional GIS surveyor only by meeting the requirements as described in the section R.49-201D of this Chapter.

### C. TIER A Professional Land Boundary Surveyor--Provisions for Geodetic Surveying.

(1) The practice of geodetic surveying is classified under land boundary surveying.

(a) Enforcement of the license requirement for geodetic surveyors will be effective July 1, 2004.

(b) After July 1, 2004 geodetic surveyors applying for licensure must meet all the requirements for land boundary surveyors as outlined in the subsection R.49-201A of this Chapter.

### D. TIER A Professional Photogrammetric Surveyor.

(1) After June 30, 2004, any person applying for licensure as a photogrammetric surveyor must meet the following requirements:

(a) Education Requirement--Photogrammetric Surveyor.

1. Education must be evaluated by an Education Consultant and approved by the Board before an application can be considered for further processing.

2. In addition to one of the following degrees, an applicant must submit proof of satisfactorily completing not less than 12 semester hours, or the equivalent in quarter hours, of course work specific to the discipline of photogrammetric surveying, satisfactory to the Board:

a. Four-year engineering or bachelor of science degree in a related field from a program accredited by the Related Accreditation Commission (RAC) or the Accreditation Board for Engineering and Technology (ABET).

b. Four-year civil engineering technology degree from a program accredited by the Technology Accreditation Commission (TAC) of ABET.

c. Four-year related baccalaureate degree, or equivalent degree, approved by the Board.

d. Two-year associate degree approved by the Board. Effective July 1, 2010, this degree will not be recognized as meeting the education requirements for registration as a photogrammetric surveyor.

(b) Experience Requirement--Photogrammetric Surveyor.

1. Photogrammetric Surveyor-in-Training.

a. An applicant applying for certification as a photogrammetric surveyor-in-training who meets the four-year education requirements must have one year of progressive practical experience.

b. An applicant who meets the two-year education requirements must have three years of progressive practical experience. Effective July 1, 2010, this provision will be void.

2. Photogrammetric Surveyor.

a. An applicant applying for licensure as a photogrammetric surveyor who meets the four-year education requirements must have four years of progressive practical experience.

b. An applicant applying for licensure as a photogrammetric surveyor who meets the two-year education requirements must have four years of progressive practical experience. Effective July 1, 2010 this provision will be void.

3. Qualifying Experience and Documentation.

a. Experience must be obtained under supervision of a licensed photogrammetric surveyor or a recognized professional in the field of photogrammetry and must be of a character satisfactory to the Board.

b. Qualifying experience approved by the Board is experience beyond elementary level activities. In order for work to be considered as qualifying experience, an advanced level of responsibility must have been placed on the applicant. Work claimed as qualifying experience should demonstrate a sound working knowledge of photogrammetry.

c. At least two years of the required experience must have been at the professional level in responsible charge of photogrammetric mapping projects meeting National Mapping Accuracy Standards.

d. The applicant must submit proof of employment in responsible charge of at least one project as a photogrammetrist. Maps and documents satisfactory to the Board detailing methods, procedures, amount of applicant's personal involvement must be submitted to document this project. These maps and documents must be signed by the professional who supervised the work and contain a statement describing the part or the work done by the applicant. The applicant must submit the name, address and telephone number of references to verify this information.

e. An applicant must submit five references as to the applicant's character and quality of work, three or more must be licensed surveyors or practicing professionals in the field of photogrammetry, having personal knowledge of the applicant's photogrammetric surveying experience.

(c) Examination Requirements--Photogrammetric Surveyor.

1. An applicant applying for certification as a photogrammetric surveyor-in-training must take and pass a written examination on the Fundamentals of Surveying (FS), prepared and graded by the NCEES.

2. An applicant applying for licensure as a photogrammetric surveyor must have taken and passed the FS examination and must take and pass an examination on the principles and practice of photogrammetry and an examination on the Board's rules and regulations as referred to in the section R.49-104B(5) of this Chapter.

(2) A person licensed as a professional photogrammetric surveyor may practice as a professional land boundary surveyor only by meeting the requirements of the section R.49-201A of this Chapter, and may practice as a professional GIS surveyor only by meeting the requirements of the section R.49-201D of this Chapter.

E. TIER A Professional Geographic Information System (GIS) Surveyor.

(1) After June 30, 2004, any person applying for licensure as a geographic information system (GIS) surveyor must meet the following requirements:

(a) Education Requirement--GIS Surveyor.

1. Education must be evaluated by an Education Consultant and approved by the Board before an application can be considered for further processing.

2. In addition to one of the following degrees, an applicant must also submit evidence of completion of discipline specific courses of not less than 12 semester hours or the equivalent in quarter hours satisfactory to the Board.

a. Four-year baccalaureate degree in a related field from a program accredited by the Accreditation Board for Engineering and Technology (ABET).

b. Four-year civil engineering technology degree from a program accredited by the Technology Accreditation Commission (TAC) of ABET.

c. Four-year related baccalaureate degree, or equivalent degree, approved by the Board.

d. Two-year Associate Degree approved by the Board. Effective July 1, 2010, this degree will not be recognized as meeting the education requirements for registration as a Geographic Information System Surveyor.

(b) Experience Requirements--GIS Surveyor.

1. Geographic Information System Surveyor-in-Training.

a. An applicant applying for certification as geographic information system surveyor-in-training who meets the four-year education requirements must have one year of progressive practical experience.

b. An applicant who meets the two-year education requirements must have three years of progressive practical experience. Effective July 1, 2010 this provision will be void.

2. Geographic Information System Surveyor.

a. An applicant applying for licensure as a geographic information system surveyor who meets the four-year education requirements must have four years of progressive practical experience.

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b. An applicant applying for licensure as a geographic information system surveyor who meets the two-year education requirements must have four years of progressive practical experience. Effective July 1, 2010 this provision will be void.

c. An applicant applying for licensure as a geographic information system surveyor who holds a master's degree in surveying, geography, or a related field of study approved by the Board must have three years of practical experience.

### 3. Qualifying Experience and Documentation.

a. Experience must be obtained under supervision of a licensed geographic information system surveyor or a recognized professional in the field of GIS and must be of a character satisfactory to the Board.

b. Qualifying experience approved by the Board is experience beyond elementary level activities. In order for work to be considered as qualifying experience, an advanced level of responsibility must have been placed on the applicant. Work claimed as qualifying experience should demonstrate a sound working knowledge of GIS.

c. At least two years of the required experience must have been at the professional level in responsible charge of geographic information system mapping projects.

d. The applicant must submit proof of employment in responsible charge of at least one project as a GIS Surveyor. Maps and documents, satisfactory to the Board, detailing methods, procedures, amount of applicant's personal involvement must be submitted to document this project. The map and related project information submitted must include the project information.

e. Maps and documents must be signed by the professional who supervised the work and contain a statement describing the part or the work done by the applicant. The applicant must submit appropriate contact information including the name, address and telephone number of references to verify this information.

f. An applicant must submit five references as to the applicant's character and quality of work; three or more must be licensed surveyors or practicing professionals in the field of GIS having personal knowledge of the applicant's GIS surveying experience.

### (c) Examination Requirements--GIS Surveyor.

1. An applicant applying for certification as geographic information system surveyor-in-training must take and pass the written examinations on the Fundamentals of Surveying (FS), prepared and graded by the NCEES.

2. An applicant applying for licensure as a geographic information system surveyor must have taken and passed the FS examination and must take and pass an examination on the principles and practice of geographic information systems and pass an examination on the Board's rules and regulations.

### F. TIER B Professional Land Surveyor.

(1) An applicant shall be licensed as a TIER A Land Boundary Surveyor prior to submitting an application for licensure or registration as a TIER B Land Surveyor.

(2) An applicant must meet the requirements of education, experience and examinations.

### (a) Examinations--TIER B Land Surveyor.

1. An applicant must have taken and passed the written examinations required for licensure as a TIER A Land Boundary Surveyor which include the FS and PS examinations, prepared and graded by the NCEES, and the State Specific Land Surveying Examination.

2. An applicant must also take and pass a special written examination pertaining to the practice of TIER B land surveying in the State which includes the design of storm drainage systems and preparation of sedimentation and erosion control plans associated with the development of residential subdivisions.

(3) A TIER B land surveyor may practice as a professional photogrammetric surveyor only by meeting the requirements of the section R.49-201D of this Chapter, and may practice as a professional GIS surveyor only by meeting the requirements of the section R.49-201E of this Chapter.

## 49-202. Classifications and Scopes of Authority: Engineers and Surveyors.

### A. Category A Professional Engineer.

(1) A professional engineer who by reason of his special knowledge of the mathematical and physical sciences and the principles and methods of engineering analysis and design, acquired by professional education and practice experience, is qualified to practice engineering as defined in Section 40-22-22 of the

Practice Act, all as attested by his legal license and registration as a professional engineer in this State, is classified as a Category A license holder.

(2) The Category A professional engineer license holder is entitled to the unrestricted practice of engineering as described in Section 40-22-22 of the Practice Act.

B. Category B Associate Professional Engineer.

(1) An associate professional engineer is qualified to practice within the profession of engineering in the restricted manner defined in the Code and as attested by his recognition and registration as an associate professional engineer in this State is classified as a Category B license holder.

(2) The practice of Category B associate professional engineers is subject to certain restrictions:

(a) An associate professional engineer must not assume direct responsibility, direct supervisory control or responsible charge for engineering work as an independent practitioner, or for engineering work provided by or through a "private practice organization" as defined by statute.

(b) Work by a Category B associate professional engineer employed by a "private practice organization" must be under the direct responsibility, supervisory control, and responsible charge of a Category A professional engineer.

(c) Where documents are required to be submitted to building officials and other authorities having jurisdiction for government review, approval or permitting, and where such documents are required to be submitted under the signature or seal of a Professional Engineer, the documents must be prepared by or under the responsible charge of and submitted only by a Category A professional engineer.

(d) A Category B associate professional engineer shall not, by title, verbal claim, sign, advertisement, letterhead, card or in any other way, represent himself to be a Professional Engineer.

(3) A Category B associate professional engineer may apply for an unrestricted Category A professional engineer license provided the requisite supplemental education is acquired to qualify under one or more of the provisions as described in the section R.49-200 of this Chapter. An associate engineer licensed for Category B practice as of July 1, 2006, may continue to practice under the conditions provided for in Regulation 49-202(B) or an identical successor regulation. As of July 1, 2020, Category B licensure ceases to exist.

C. TIER A Land Surveyor.

(1) The practice of TIER A land surveying consists of three separate disciplines: (a) land boundary surveying, (b) photogrammetry, and (c) geographic information systems (GIS). A land surveyor may be licensed in one or more of the disciplines and practice is restricted to only the discipline or disciplines for which the land surveyor is licensed.

(2) The scopes of authority for the individual disciplines of TIER A land surveying are identified as follows:

(a) Professional Land Boundary Surveyor (PLS).

1. Locates, relocates, establishes, re-establishes, lays out or retraces any property line or boundary of any tract of land or any road, right-of-way, easement, alignment, or elevation of any fixed works embraced within the practice of land surveying, or makes any survey for the subdivisions of land;

2. Determines, by use of principles of land surveying, the position for any survey monument or reference point; or sets, resets, or replaces such monument or reference; determines the topographic configuration or contour of the earth's surface with terrestrial or extraterrestrial measurements; conducts hydrographic surveys;

3. Conducts geodetic surveying which includes surveying for determination of geographic position in an international three-dimensional coordinate system, where the curvature of the earth must be taken into account when determining directions and distances; geodetic surveying includes the use of terrestrial measurements of angles and distances, as well as measured ranges to artificial satellites;

4. Creates graphical representations of the data related to items C(2)(a)1.2.3 above;

5. Performs work of a professional photogrammetric surveyor as described in the item C(2)(b).

(b) Professional Photogrammetric Surveyor (PPS).

1. Determines the configuration or contour of the earth's surface or the position of fixed objects thereon by applying the principles of mathematics on remotely sensed data, such as photogrammetry.

2. Creates graphical representations of data relating to the item (b)1 above.

3. Performs work of a land boundary surveyor as described in the item C(2)(a) above or as a geographic information systems (GIS) surveyor as described in the item C(2)(c) below only after obtaining a license in those categories.

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(c) Professional Geographic Information System (GIS) Surveyor.

1. Creates, prepares, or modifies electronic or computerized data including land information systems and geographic information systems relative to the performance of the activities described in subsections (a) and (b) above.

2. Creates digital spatial data based on integration, interpretations, transformations, and/or the manipulation of primary data sources that affects the health, welfare, or safety of the public.

3. Performs work of a land boundary surveyor as described in subsection C(2)(a) above or as a photogrammetric surveyor as described in the item C(2)(b) above only after obtaining a license in those categories.

(3) The practice of TIER A land surveying includes the use of GIS or LIS to create maps pursuant to Section 40-22-290 of the Practice Act, analyze data, or create reports.

D. TIER B Professional Land Surveyor.

(1) Persons registered as both Professional Land Surveyor and Professional Engineer are classified as TIER B Professional Land Surveyors.

(2) The practice of TIER B land surveying as described by Section 40-22-20(24) of the Practice Act, and regulated by the Board shall include the authority, within the limits set by these regulations, to practice the design of storm drainage systems and the preparation of sedimentation and erosion control plans associated with the development of residential subdivisions. Included within this practice of TIER B land surveying is the design of stormwater detention or retention facilities incidental to the surveyor's design of storm drainage systems; provided, however, that these facilities are not lakes, ponds or similar impoundments intended to contain water at all times.

(a) As used in this section, the term "residential subdivision" means property developed for single family residences and other type projects where individual lots are established for each residential unit. The density of these projects shall be limited to two lots or units per acre. Apartment projects and projects for developments of commercial or industrial properties are not included within the scope of authority.

(b) Where reference has been made to "lakes, ponds or similar impoundments intended to contain water at all times," such reference is not intended to limit a TIER B Land Surveyor's authority to prepare calculations pertaining to the hydrology or hydraulics of these impoundments. It is expected, however, that such impoundments will require a more detailed analysis and design with respect to soil mechanics. Consequently design of impoundments intended to contain water at all times should be based upon appropriate geotechnical evaluations conducted under the direction of a licensed engineer experienced in such matters. The geotechnical investigations and report should, as a minimum, evaluate site conditions and provide recommendations for materials and methods of construction of the impoundment.

(3) The practice of TIER B land surveying shall not include the design of drainage structures, drainage systems, or other drainage features which are not incidental to the development of a residential subdivision. Projects which are purely drainage in nature or where a subdivision of a parcel of land into small parcels is not involved shall not fall within the scope of practice authorized for TIER B land surveyors. The design of such features as water systems, sanitary sewer systems, surcharged storm drainage systems or pumping stations which may also be incidental to the project are not included in this practice. The exclusion from the scope of authority of the design of "surcharged storm drainage systems" is not intended to apply to submerged outlet pipes routinely used in detention and retention basins.

(4) The practice of TIER B land surveying is further limited to the use of predesigned structures, which are approved by the county or municipal governmental agency having jurisdiction. Where standard design structures cannot be used because of extra loading, extreme depth or unusually large size, the structure shall be designed by a licensed engineer. "Predesigned Structure" is intended to cover two situations:

(a) As used in this section, the standard design for catch basins, junction boxes, and headwalls that are specified by local governments will be considered "predesigned".

(b) As used in this section, precast basins, junction boxes, and headwalls produced by concrete companies are considered as "predesigned" and may be used where allowed by the local authority.

(5) In exercising powers of a TIER B Land Surveyor, the surveyor shall undertake to perform only those assignments for which he is authorized by the statute and these regulations and for which he is qualified by education or experience in the specific technical area of TIER B land surveying involved.



## 49-203. Licensure by Comity.

## A. Professional Engineer.

(1) An application will be considered for licensure by comity from an applicant who is appropriately licensed in another jurisdiction.

(2) Any applicant holding a valid license to practice engineering issued by a proper authority of a jurisdiction or possession of the United States, based on requirements not less than those specified by the applicable licensure act in effect in the State of South Carolina at the time such other license was issued, may, upon receipt of the proper documents and payment of the fee established by the Board, be considered for licensure in the appropriate category designation without further written examination.

(3) A Model Law Engineer applicant may be licensed as a Category A Professional Engineer by making application on the prescribed form and having the NCEES Council Record sent to the Board. To be considered, the Council Record must be submitted directly to the Board by NCEES. Upon receipt of the proper documents and payment of the fee established by the Board, a Model Law Engineer applicant may be licensed as a Category A Professional Engineer without further review.

## B. Professional Surveyor.

(1) An application will be considered for registration by comity from an applicant who is appropriately registered in the state in which the applicant resides or is employed unless there are extenuating circumstances satisfactory to the Board.

(2) An application will be accepted for registration by comity if the applicant meets the requirements for education, experience and examination as prescribed by the statutes, and the rules and regulations of this Board in effect at the time of filing said application.

(3) An applicant registered in another state may be required to take such examinations as the Board deems necessary to establish that his qualifications meet the requirements of the statutes, rules and regulations of the Board. The applicant shall in all cases be required to pass a written examination including questions of laws, procedures and practices pertaining to the practice of land surveying in this State.

(4) An application will be accepted for registration by comity as a TIER B Land Surveyor after the applicant first obtains registration as a TIER A Land surveyor. An applicant in this category will be required to pass the written examination for a TIER B Land Surveyor in addition to meeting the education and experience requirements as established by the statutes and the rules and regulations of the Board.

## 49-205. Firm Registration.

A. For the purpose of this regulation, a sole proprietorship is one in which the ownership is held by a single individual who is duly licensed to practice engineering and/or surveying in this State, where there is no stock ownership in the firm, and where the practice name is identical to that in which the individual registration is held. A registered engineer or surveyor, practicing in his own name as a sole proprietorship is exempt from this section of the regulations. For multiple firms practicing engineering or surveying as a joint venture for one or more projects in this State, a Certificate of Authorization will be required for each firm practicing within the joint venture.

B. Failure to notify the Board within thirty (30) days of changes affecting the status of the firm's information shall be grounds for sanctions up to and including revocation of the organization's Certificate of Authorization. An engineer or surveyor on file with the Board as being in full authority and responsible charge shall notify the Board of any change in his employment.

## 49-207. Seals: Individuals and Firms.

## A. Description of Licensee's Seal.

(1) The seal of engineers and surveyors licensed by the Board shall be at least 1 ½ inches in diameter and similar to that prescribed for the Board. In the center there shall appear the registration number of the licensee along with the words:

- (a) "Registered Professional Engineer", for Category A engineers licensed prior to July 1, 2001.
- (b) "Licensed Professional Engineer", for Category A engineers licensed after July 1, 2001.

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- (c) "Associate Professional Engineer--Restricted License", for Category B engineers.
- (d) "Professional Engineer and Surveyor", for Category A engineers holding dual registration.
- (e) "Professional Land Surveyor", for TIER A land boundary surveyors.
- (f) "Professional Photogrammetric Surveyor", for photogrammetric surveyors.
- (g) "Professional GIS Surveyor", for geographic information systems surveyors.
- (h) "Professional Land Surveyor--TIER B", for TIER B land surveyors.

(2) Rubber stamps or computer generated seals, identical in size, design and content with the approved impression seals may be used by the registrant where the use of an impression seal is not specifically required.

### B. Description of Firm's Seal.

(1) The seal evidencing issuance of a Certificate of Authorization by this Board shall be at least 1 ½ inches in diameter and similar to that prescribed for the Board. In the center there shall appear the name of the certificate holder and the assigned Certificate of Authorization number. In the space between the circle and the outside of the Seal there shall appear the words "South Carolina" and the words "Certificate of Authorization".

(2) Rubber stamps, impression seals, or computer generated seals, identical in size, design and content with the approved impression seals may be used by the firm.

### C. Seal on Documents.

(1) The seal and signature of a licensee on a document constitutes a certification that the document was prepared by the licensee or under his direct supervision, and in the case of prototypical documents, that the licensee has reviewed the document in sufficient depth to fully coordinate and assume responsibility for application of the plans.

(2) When sealing documents is required by statute, other authority or contract, each sheet of design or construction plans and drawings for engineering practice and of maps, plats, and charts for land surveying practice shall be sealed and signed by the licensee or permit holder preparing them, or in responsible charge of their preparation. The signature and date when the document was prepared must be affixed under or across the face and beyond the circumference of the seal but in a manner that does not obliterate or render illegible the licensee's name and number. Where the engineering or surveying practice is provided through a firm, such documents shall also carry the Certificate of Authorization seal.

(3) Where more than one page is bound together in one volume of documents, specifications or reports, the licensee or permit holder who prepared said volume, or under whose direction and control said volume was prepared, may seal, date and sign only the title or index sheet, provided that the signed sheet clearly identifies all of the other sheets comprising the bound volume, and provided that any of the other sheets which were prepared by, or under the direction and control of, another licensee or permit holder, be sealed, dated and signed by said other licensee or permit holder with responsibility clearly delineated. This provision, however, shall not apply to design drawings and construction plans prepared by or under the responsible charge of a licensee. Such documents shall carry the required seals, date and licensee's signature on each sheet.

(4) Additions, deletions or other revisions to sealed documents shall not be made, unless such changes are sealed, dated and signed by the licensee who made the revisions or under whose directions and control said revisions were made.

## ARTICLE 3.

### RULES OF PROFESSIONAL CONDUCT

#### 49-300. Preamble.

A. In order to safeguard the life, health, property and welfare of the public and to establish and maintain a high standard of integrity, skills, and practice in the profession of engineering and surveying, the following Rules of Professional Conduct are promulgated in accordance with the Code of Laws of South Carolina (1976, as amended), Title 40, Chapter 22, and shall be binding upon every person holding a certificate of registration as a Professional Engineer or Surveyor. Reference to engineer or surveyor in this Article shall mean any engineer, surveyor, corporation, professional corporation, partnership or firm, authorized to offer or perform engineering or surveying services in this State.

- B. The Rules of Professional Conduct delineate specific obligations engineers and surveyors must meet. In addition, each engineer and surveyor is charged with the responsibility of adhering to standards of generally accepted ethical and moral conduct in all aspects of the practice of professional engineering and surveying.
- C. The Rules of Professional Conduct as promulgated herein are an exercise of the police power vested in the South Carolina State Board of Registration for Professional Engineers and Surveyors by virtue of the acts of the legislature, and as such the South Carolina State Board of Registration for Professional Engineers and Surveyors is authorized to establish conduct, policy and practices in accordance with the powers herein above stated.
- D. All engineers and surveyors registered under the Code of Laws of South Carolina (1976, as amended), Title 40, Chapter 22, are charged with having knowledge of the existence of these Rules of Professional Conduct, and shall be deemed to be familiar with their several provisions and to understand them. Such knowledge shall encompass the understanding that the practices of engineering and surveying are privileges, as opposed to rights, and the registrants shall be forthright and candid in their statements or written responses to the Board or its representatives on matters pertaining to professional conduct.

#### 49-301. Responsibility to the Public.

The Engineer or Surveyor shall hold paramount the safety, health, and welfare of the public in the performance of his professional duties.

- A. The Engineer or Surveyor shall at all times recognize that his primary obligation is to protect the safety, health, property and welfare of the public and shall conduct his practice to fulfill this obligation.
- B. If the judgment of the engineer or surveyor is overruled under circumstances where the safety, health, and welfare of the public are endangered, he shall inform his employer of the possible consequences and notify other proper authority of the situation, as may be appropriate.

#### 49-302. Competency for Assignments.

The Engineer or Surveyor shall perform his services only in the areas of his competence.

- A. The Engineer or Surveyor shall undertake to perform engineering or surveying assignments only when qualified by education or experience in the specific technical field of professional engineering or surveying involved.
- B. The Engineer or Surveyor may accept an assignment requiring education or experience outside of his own field of competence, but only to the extent that his services are restricted to those phases of the project in which he is qualified. All other phases of such projects shall be performed by qualified associates, consultants, or employees.
- C. The Engineer or Surveyor shall not affix his signature and seal to any engineering or surveying plan or document dealing with subject matter to which he lacks competence by virtue of education or experience, nor to any such plan or document not prepared under his direct supervisory control.
- D. In the event a question arises as to the competence of an Engineer or Surveyor to perform an engineering or surveying assignment in a specific technical field of engineering or surveying which cannot be otherwise resolved to the Board's satisfaction, the Board, either upon request of the Engineer or Surveyor or by its own volition, may require him to submit to an appropriate examination as determined by the Board.

#### 49-303. Public Statements.

The Engineer or Surveyor shall issue public statements only in an objective and truthful manner.

- A. The Engineer or Surveyor shall be completely objective and truthful in all professional reports, statements, or testimony. He shall include all relevant and pertinent information in such reports, statements, or testimony.
- B. The Engineer or Surveyor when serving as an expert or technical witness before any court, commission, or other tribunal shall express an opinion only when it is founded upon adequate knowledge of the facts in issue, upon a background of technical competence in the subject matter, and upon honest conviction of the accuracy and propriety of his testimony.

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C. The Engineer or Surveyor will issue no statements, criticisms or arguments on engineering or surveying matters connected with public policy which are inspired or paid for by an interested party, or parties, unless he has prefaced his comment by explicitly identifying himself, by disclosing the identities of the party or parties on whose behalf he is speaking, and by revealing the existence of any interest he may have in the matters.

### 49-304. Conflicts of Interest.

The Engineer or Surveyor shall avoid conflicts of interest.

A. The Engineer or Surveyor shall conscientiously strive to avoid conflicts of interest with employer or client, but when unavoidable, the Engineer or Surveyor shall forthwith disclose the circumstances to his employer or client. In addition the Engineer or Surveyor shall avoid all known conflicts of interest with his employer or client and shall promptly inform his employer or client of any business association, interests, or circumstances which could influence his judgment or the quality of his service.

B. The Engineer or Surveyor shall not accept compensation, financial or otherwise, from more than one party for services on the same project, or for services pertaining to the same project, unless the circumstances are fully disclosed and agreed to, by all interested parties.

C. The Engineer or Surveyor shall not solicit or accept financial or other valuable considerations from material or equipment suppliers for specifying their projects.

D. The Engineer or Surveyor shall not solicit or accept gratuities, directly or indirectly from contractors, their agents, or other parties dealing with his client or employer in connection with work for which he is responsible.

E. When in public service as a member, advisor, or employee of a governmental body or department, the Engineer or Surveyor shall not participate in considerations or actions with respect to services provided by him or his organization in private engineering or surveying practices.

### 49-305. Solicitation of Work.

The Engineer or Surveyor shall solicit and accept work only on the basis of his qualifications.

A. The Engineer or Surveyor shall not offer to pay, either directly or indirectly, any commission, political contribution, or a gift, or other consideration in order to secure work. It is not a violation of law to seek or secure salaried positions through employment agencies.

B. The Engineer or Surveyor shall not falsify or permit misrepresentation of his, or his associates' academic or professional qualifications. He shall not misrepresent or exaggerate his degree of responsibility in or for the subject matter of prior assignments. Brochures or other presentations pertaining to the solicitation of employment shall not misrepresent pertinent facts concerning employers, employees, associates, joint-venturers, or his or their past accomplishments with the intent and purpose of enhancing his qualifications and his work.

C. The Engineer or Surveyor shall not review the work of another engineer or surveyor for the same client, except with the knowledge of such engineer or surveyor, or unless the connection of such engineer or surveyor with the work has been terminated.

### 49-306. Improper Conduct.

The Engineer or Surveyor shall conduct his work with honesty and integrity.

A. The Engineer and Surveyor shall not knowingly associate with or permit the use of his name or organization's name in a business venture by any person or organization which he knows, or has reason to believe, is engaging in business or professional practices of a fraudulent or dishonest nature.

B. If the Engineer or Surveyor has knowledge or reason to believe that another person or organization may be in violation of any of these provisions or of the Code of Laws of South Carolina (1976, as amended), Title 40, Chapter 22, he shall present such information to the Board in writing and shall cooperate with the Board in furnishing such further information or assistance as may be required by the Board.

C. Engineering and surveying registrants shall recognize and honor practice restrictions placed upon them by their designated license category or practice tier.

ARTICLE 4.  
STANDARDS OF PRACTICE MANUAL  
FOR SURVEYING IN SOUTH CAROLINA

49-400. Purpose.

A. These regulations are intended to establish minimum standards for the practice of surveying in South Carolina.

(1) The standards set forth are to promote uniform requirements for and accurate surveys by surveyors practicing in South Carolina.

(2) The established guidelines will assist a surveyor in meeting the needs of his clients so that surveyed properties henceforth can be readily located, mapped and described in a definitive and easily understood manner.

B. These regulations are also intended to provide guidelines that will assist property owners and others who deal with real property such as those in the legal, banking, and real estate professions.

(1) The manual should be of value to property owners in South Carolina when engaging the services of qualified surveyors to establish corners, boundaries and maps of their respective properties.

(2) The manual should assist the Clerks of Court in the various counties of South Carolina in receiving and accepting for recordation maps that are in compliance with appropriate standards and statutory requirements.

49-410. Compliance.

A. All Surveyors shall comply with these regulations governing minimum standards for the practice of surveying in South Carolina.

B. A surveyor who practices surveying in South Carolina in violation of the minimum standards contained in this manual, on complaint in writing, sworn to by the complainant and submitted to the Board of Registration for Professional Engineers and Surveyors, shall be notified of the complaint and afforded an opportunity to be heard before the Board.

C. The repeated failure to adhere to minimum standards for surveying as contained in this manual may be considered as prima facie evidence of misconduct in the practice of surveying on the part of a Surveyor.

D. The Board will investigate information from Clerks of Court, clients, individuals, and land owners if in the Board's opinion a surveyor appears to have performed surveying which is not in compliance with this manual. When a surveyor obligates himself and contracts to survey real property in South Carolina by virtue of his registration and the license granted him by this State, he accepts the responsibility to comply with minimum standards prescribed by this manual.

E. The Board shall provide for each Surveyor and for each Clerk of Court in this State a copy of the Standards of Practice Manual for Surveying in South Carolina. Copies will be made available, upon request, for other State officials and the general public.

49-420. General.

A. For the purpose of these regulations, the following terms or words are defined as meaning:

(1) The term "Board" shall mean the South Carolina State Board of Registration for Professional Engineers and Surveyors.

(2) The term "manual" shall mean the Standards of Practice Manual for Surveying in South Carolina.

(3) The term "minimum standards" shall mean the standards of practice for surveying in South Carolina.

(4) The term "surveyor" shall mean a surveying practitioner duly registered by the Board for the practice of surveying in the State of South Carolina.

(5) The terms "Clerk of Court", "Register of Deeds" and "Register of Mesne Conveyance" shall refer to the office in the county having responsibility for recording plats, maps and deeds.

(6) The term "seal" shall mean the raised embossed seal of the Surveyor.

(7) The term "accurate" shall mean that degree of accuracy consistent with the standards and tolerances specified in this manual.

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B. The proper execution of surveying, platting and mapping procedures and all other details of a survey are the direct responsibility of the Surveyor whose raised embossed seal and original personal signature shall appear on the plat or map to be prepared. The fact that a plat or map is approved by a planning department or accepted by Clerk of Court for recordation in no way relieves the surveyor whose seal appears upon the drawing of the full responsibility to make certain that the plat or map meets the requirements of these standards.

C. The original plat or map shall remain for a period of time required by the statute of repose in the possession of the surveyor whose seal appears thereon. It should, therefore, be professionally and accurately prepared as a permanent record and after prints or copies have been made for recordation or other purposes the original plat should be carefully preserved by the surveyor or his firm along with the surveyor's original field notes, calculations, and work sheets for, at a minimum, the length of time the statute of repose applies. Such material, in original form, is to be made available when required either by the Board or by the courts.

D. The words "course" and "bearing" are used interchangeably in this manual.

E. Where survey requirements are more stringent than those set forth herein, the surveyor shall comply with those standards as mandated by federal, state, or local governmental requirements.

F. Surveys which are performed for a specific stated purpose other than boundary surveys as defined herein shall be permitted where unusual conditions make it impractical or impossible to perform the survey to the standards set forth herein, provided the purpose and conditions shall be clearly stated on the survey drawing. This section is not to be used in any way to circumvent the standards in this manual on a survey which can be performed to these standards.

G. Additions and/or deletions to survey drawings by other than the signing party or parties are prohibited without written consent of the original signing party or parties.

H. The surveyor shall comply with the minimum survey classifications noted herein but has the option to negotiate with each client an agreement for a higher classification.

### 49-430. Nomenclature.

A. In surveying work, it is acceptable to employ abbreviations and symbols. When use of such abbreviations and symbols are necessary, the following are acceptable and may be employed in land surveying work in South Carolina:

- (1) Acres: AC
- (2) Acrylonitrile Butadiene ABS
- (3) Angle: Ang
- (4) Avenue: AV
- (5) Azimuth: Az
- (6) Bench Mark: BM
- (7) Catch Basin: CB
- (8) Calculated Course(s): CC
- (9) Calculated Distance: CD
- (10) Corrugated Metal Pipe CMP
- (11) Crimp /Clip/Pinch Top CT
- (12) Curb Face: CF or FOC
- (13) Curb Inlet CI
- (14) Curb and Gutter: CG
- (15) Chord: CH
- (16) Center Line: CL or C/L or CL
- (17) Concrete Monument Con. Mon.
- (18) Continuously Operating Reference Station: CORS
- (19) Degree of Curve: D
- (20) Deed Book: DB
- (21) Deflection Angle: Defl Ang
- (22) Departure: Dep
- (23) Ductile Iron Pipe: DIP
- (24) Drop Inlet: DI

- (25) Drill Hole: DH
- (26) Delta Angle :  $\Delta$  or I
- (27) Double Meridian Distance: DMD
- (28) Easement: ESMT
- (29) East: E
- (30) Error of Closure: EC
- (31) Elevation: EL
- (32) Edge of Pavement: P
- (33) Foot: Ft.
- (34) Found: Fd. or F
- (35) Global Navigation Satellite System: GNSS
- (36) Global Positioning System: GSP
- (37) Global'naya Navigatsionnava SputnikovavaSistima: GLONASS
- (38) Gutter: Gut
- (39) Highway: Hwy
- (40) Invert Elevation: I.E. or Inv.
- (41) Iron Pipe, Set: IPS
- (42) Iron Pipe, Found: IPF
- (43) Length of Curve: L or Arc
- (44) Latitude: Lat
- (45) Long Chord: LC
- (46) Mag Nail: MN
- (47) Magnetic course: MC
- (48) Manhole: MH
- (49) Mile: Mi
- (50) Marker: Mk
- (51) Monument: Mon
- (52) Nail and Cap: N & C
- (53) New: N or (N)
- (54) Not To Scale: NTS
- (55) North: N
- (56) North American Datum 1927: NAD 27
- (57) North American Datum 1983: NAD 83
- (58) North American Vertical Datum 1988: NAVD 88
- (59) National Geodetic Survey: NGS
- (60) National Geodetic Vertical Datum 1929: NGVD 29
- (61) Offset: O.S. OR O/S
- (62) Old: O or (O)
- (63) On-line Positioning User Service (NGS): OPUS
- (64) Parts Per Million: PPM
- (65) Perimeter: P
- (66) Pavement: Pave
- (67) PK Nail: PK
- (68) Plat Book: PB
- (69) Point of Beginning: POB
- (70) Point of Curvature: PC
- (71) Point of Compound Curve: PCC
- (72) Point on Curve: POC
- (73) Point of Intersection: P.O.I. or P.I.
- (74) Point of Tangent: POT
- (75) Point of Reverse Curvature: PRC
- (76) Point on Tangency: PT
- (77) Point: Pt

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- (78) Polymerized Vinyl Chloride: PVC
- (79) Position Dilution of Position: PDOP
- (80) Private: Pvt
- (81) Property Line: PL
- (82) Radius: R
- (83) Reference Point: RP
- (84) Railroad: RR
- (85) Railroad Spike: RRS
- (86) Reinforced Concrete Pipe: RCP
- (87) Register of Mesne Conveyance: RMC
- (88) Railway: Rwy
- (89) Real Time Kinematic Surveying: RTK
- (90) Real Time Network: RTN
- (91) Rebar: RB
- (92) Register of Deeds: ROD
- (93) Right of way: R/W
- (94) Satellite Receiver for RTK or VRS Surveying: Rover
- (95) Satellite Receiver Base Station: Base
- (96) South: S
- (97) SC State Plane Coordinate-South Zone NAD 27: SC SPCS 27
- (98) SC State Plane Coordinate NAD 83: SC SPC 83
- (99) South Carolina Geodetic Survey: SCGS
- (100) Square: Sq
- (101) Square Feet: SF or FT<sup>2</sup>
- (102) Street: St
- (103) Station: Sta
- (104) Stake: Stk
- (105) Tangent of Curve: T
- (106) Tack: Tk
- (107) Traverse: Tra
- (108) Track: Trk
- (109) US Bureau of Standards: USBS
- (110) Vertical: Vert
- (111) Vitrified Clay Pipe: VCP
- (112) Virtual Reference Station Network: VRS
- (113) West: W
- (114) Wood: Wd
- (115) Symbols:
  - (a) Degree: °
  - (b) Minute: ′
  - (c) Second: ″
  - (d) Foot or Feet: ′

B. The following are acceptable abbreviations for metric measures:

- (1) Area: A
- (2) Centimeter: CM.
- (3) Decimeter: DM.
- (4) Hectare: HA.
- (5) Kilometer: KM.
- (6) Meter: M
- (7) Millimeter: MM.
- (8) Square Meter: M<sup>2</sup>



C. Definitions: The following definitions and terminology shall be used in land descriptions:

(1) Boundary Line: Any line bounding an area or dividing separate properties; adequately dimensioned and described. Such lines may be straight, irregular, circular, or spiral.

(2) Point of Beginning: A well defined, readily located, and permanent point or monument that is the starting point on a parcel for a metes and bounds description; and also is the final point of such description.

(3) Point of Commencement: A well defined, readily located, and permanent point or monument that is the point to which the Point of Beginning is tied for a permanent reference.

(4) Convey: The act of transferring title or rights to a property.

(5) Grantor: A person or party conveying property or rights to a grantee.

(6) Grantee: A person or party receiving title or rights to property.

(7) Title: A written claim or right which constitutes a just and legal cause of exclusive possession.

(8) Metes and Bounds Description: A description in which the boundary lines start from a given point and is described by listing the direction, distance, and description of corners of the lines forming this boundary; in succession and adjoining owners.

(9) Description by Lot Number: A description which identifies a lot or tract of land by reference to a previously surveyed subdivision plat together with other pertinent information.

(10) Recorded: Placed on record in the office of the Clerk of Court, Register of Deeds or Register of Mesne Conveyance for the county in which all or part of the land lies.

(11) Coordinate Description: A description of lands in which the angle points or other points in the boundary are each referred to by grid coordinates on the South Carolina State Plane Coordinate System (current Datum) or similar coordinate system.

(12) Grid Coordinates: Distances measured at right angles to each other in a rectangular system having two base lines at right angles to each other.

(13) Survey: The orderly process of determining data relating to the physical characteristics of the earth, which may be further defined according to the type of data obtained, the methods and instruments used, and the purpose(s) to be served.

(14) Boundary Survey: A survey, the primary purpose of which may include, but is not limited to, the determining of the perimeters of a parcel or tract of land by establishing or reestablishing corners, monuments, and boundary lines for the purpose of describing, or platting or dividing the parcel.

(15) Closing/Loan or Mortgage Survey: A boundary survey of a parcel or lot which includes all improvements obvious and apparent found on the property, to be used in the preparation of a mortgage, loan or deed document.

(16) Topographical Survey: A survey of the natural and selected man-made features of a part of the earth's surface by remote sensing and/or ground measurements to determine horizontal and vertical spatial relations.

(17) Compiled Map: A map drawn from previously recorded or unrecorded documents, photographic material or tax maps which represent the general configuration of the parcel where partial or no actual surveying has been performed by the land surveyor preparing the map.

(18) Right of Way Survey: A Survey of any strip or area of land, including surface, overhead, or underground, granted fee simple for a designated use, such as for drainage and irrigation canals and ditches; electric power, telegraph, and telephone lines; gas, oil, water, and other pipe lines; highways, and other roadways, or other similar uses.

(19) Geodetic Survey: A survey of areas and points affected by and taking into account the curvature of the earth using a nationally defined horizontal and vertical datum. Geodetic surveys may be performed with terrestrial or satellite surveying technology but must be connected to the coordinate realization of the North American Datum 1983 or other recognized datum. All geodetic surveys, both vertical and horizontal, in the State of South Carolina shall conform to the Federal Geographic Data Committee's Geospatial Positioning Accuracy Standards, Part 2: Standards for Geodetic Networks in their most current publication. Geodetic surveys shall be performed by a surveyor licensed by this board.

(20) Geodetic Datum: The recognized horizontal and vertical datum for South Carolina shall be North American Datum 1983 (NAD83) and North American Vertical Datum 1988 (NAVD88) respectively, or later accepted datum if applicable. The National Geodetic Survey no longer publishes relative accuracies such as first, second or third order. Instead, accuracies are now published as relative network positional accuracy

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stated at the 95% confidence level. These positional accuracies are in complete agreement with the Federal Geographic Data Committee.

(21) State Plane Coordinate System: The official coordinate system for surveying purposes in South Carolina is the South Carolina State Plane Coordinate System, single zone Lambert Polyconic Projection designated by the National Geodetic Survey as Zone 3900. For the purpose of the South Carolina State Plane Coordinate System, the foot is the International Foot with one inch being exactly 2.54 centimeters. To convert metric coordinates to the international feet multiply by 3.280839895.

(22) Hydrographic Survey: A survey having for its principal purpose the determination of data relating to bodies of water, and which may consist of the determination of one or several of the following classes of data; depth of water and configuration of bottom; directions and force of current; heights and times and water stages; and location of fixed objects for survey and navigation purposes.

(23) Wetlands Survey: A survey showing the boundaries of an area delineated as "jurisdictional waters of the US." Wetland Boundaries shall be tied by course and distance to either 1) property corners that are properly monumented, or 2) project boundaries that have been properly monumented, or 3) State Plane Coordinates. This shall be done in a manner that permits future surveyors to readily retrace the wetland boundary. The error of closure of such ties must be consistent with the land use classification of the parcel being surveyed as described in section 49-440 Classification of Surveys. Data collection and platting of these types of wetland boundaries must be performed by or under the direct supervision of a surveyor. A surveyor may not accept wetlands survey data from non-licensed individuals who are not under their direct supervision for the purpose of recording the information on survey plats. If equipment other than survey grade accuracy equipment is used on the survey, a statement indicating the equipment and procedures used for the work must be clearly stated on the plat.

(24) Corner: A point on a land boundary.

(25) Monument: A shaft of ferrous metal, concrete, stone or concrete and metal; placed to designate a fixed point; placed near vertically in the earth; designed for maximum permanency, placed by a land surveyor to mark corners.

(26) Witness Monument: Any monument that does not occupy the same defined position as the corner itself, but whose relationship to the corner is established.

(27) Reference Point: Any defined position that is or can be established in relation to another defined position.

(28) Benchmark: A relatively permanent material object, natural or artificial, bearing a marked point whose elevation above or below a referenced datum is known.

(29) Plat: A diagram drawn to scale showing all essential data pertaining to the boundaries and subdivisions of a tract of land, as determined by a survey and must be signed and sealed by the surveyor.

(30) Map: A representation on a plane surface, at an established scale, of the physical features of a part of the earth's surface, shown by the use of, but not limited to lines, arcs, signs, alpha numeric characters and symbols.

(31) Map of Survey, Plat of Survey, Survey for or other Similar Titles: Any drawing of a parcel or tract of real property used for the purpose of depicting the results of a field survey. Each survey drawing shall state the type of survey it depicts as defined in this manual.

(32) Global Navigation Satellite System (GNSS): Any satellite system which can be used to determine a precise location on the surface of the Earth. The US system is known as NAVSTAR Global Positioning System (GPS). The Russian system is known as the Global'naya Navigatsionnaya Sputnikovaya Sistema or GLONASS. The European Space Agency system is known as GALILEO.

(33) Position Dilution of Precision (PDOP): A numerical measure of the predicted accuracy of a geodetic position determined from GNSS satellites. The term represents the goodness of the geometry of the satellites with respect to the receiver location. A PDOP of 3 or less will generally insure accuracy of the highest survey quality. A PDOP of 5 or less is generally acceptable for most surveying and mapping projects where the distance between Rover and the nearest Base station is less than 10KM.

(34) Multipath: Multipath is an erroneous GNSS distance measurement between a GNSS satellite and either the Rover or Base. The multipath signal results from the receiver using a signal that has been reflected off a structure or water surface on its way to the receiver. The resulting measurement of distance from the satellite to the receiver is longer.

(35) Base Station: The name given to a GNSS receiver located over a known point or geodetic control monument.

(36) Rover: The name given to a GNSS receiver located over an unknown survey point whose coordinates are to be determined or checked against known geodetic control.

(37) Static GNSS Survey: A geodetic survey that uses multiple survey grade satellite receivers each collecting the same satellite data simultaneously. At least one satellite receiver must be on a known geodetic control station. The data is post-processed to yield three dimensional vectors between the known and unknown control stations. Static vectors solutions yield a “no check” solution and therefore by themselves do not meet minimum standards without additional independent checks. An expected relative accuracy of 0.07 foot plus 1:50,000 of the distance separating the Base and Rover can be obtained dependent on the length of time of simultaneous observations, the quality of the receivers, multipath and PDOP of less than 5.

(38) Static GNSS Positioning of Property Corners: If GNSS STATIC survey techniques are used to establish SC State Plane Coordinates on property corners, the corners shall be positioned from the nearest two (2) first or second order horizontal control monuments in the National Geodetic Survey (NGS) data base. Property corners shall be positioned to a horizontal accuracy of at least  $0.07' + 1/20,000$  or 0.2 feet (whichever is smaller) with relation to the nearest NGS horizontal control monument.

(39) Real Time Kinematic (RTK) GNSS Survey: A geodetic survey that uses multiple survey grade satellite receivers each collecting the same satellite data simultaneously. At least one Base receiver must be on a known geodetic control station and is capable of transmitting satellite data in real time to other Rover receivers. The data is processed by the Rovers in real time to yield three dimensional vectors between the Base and Rover stations. RTK vectors solutions yield a “no check” solution and therefore by themselves do not meet minimum standards without additional independent checks. RTK surveys require a site calibration to the NAD83 and NAVD88 in the vicinity of the survey. An expected relative accuracy of 0.05 foot plus 1 PPM of the distance separating the Base and Rover can be obtained dependent on the length of time of RTK observations, the quality of the receivers, PDOP of less than 3, a minimum of 5 GPS satellites, multipath and quality of the site calibration.

(40) VRS GNSS Survey: A geodetic survey that uses multiple dual frequency survey grade satellite receivers each collecting the same satellite data simultaneously. Base stations are operated by the SCGS and data is streamed to the Rovers via the Internet and processed in real time to yield three dimensional vectors between the Base Stations and Rovers. VRS vectors solutions yield a “network check” solution and therefore will meet minimum standards without additional independent checks. VRS surveys require an “independent check” by occupying a known geodetic control point in the National datum in the vicinity of the survey to verify the proper operation of the Rover. An expected relative accuracy of 0.05 foot can be obtained dependent on the length of time of VRS observations, the quality of the receivers, PDOP of less than 3, a minimum of 5 GPS satellites and minimal multipath.

(41) Classification of Geodetic Surveys (Performed using GNSS Technology)

Type	Relative Accuracy (95%)	Max PDOP	Min # of Satellites	Site Calibration
Static GNSS	$0.07' + 1:50,000$	5	4	N
Property Corner Positions	$0.07' + 1:20,000$	5	4	N
RTK GNSS	$0.07' + 1\text{PPM dist from Base}$	3	5	Y
VRS GNSS	$0.07'$	3	5	N

All the above Geodetic Surveys will achieve the required minimum accuracy for Land Surveys

49-440. Classification of Surveys.

A. The accuracy of the measurements for a survey shall be based upon the character of the land, the type of survey and the current use of the land. Unadjusted Ratio of Precision permissible shall be no less than the errors of closure prescribed below. In lieu of an Unadjusted Ratio of Precision, a Relative Positional Accuracy may be used. Relative Positional Accuracy may be tested by: (1) comparing the relative location of points in a survey as measured by an independent survey of higher accuracy or (2) the results of a minimally constrained, correctly weighted least square adjustment of the survey.

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B. On the basis of the size and character of the land, boundary surveys for conveying, platting, mapping, or describing property shall be classified as follows:

(1)(Class A) Urban Land Surveys: Urban surveys include land properties which lie within or adjoin city or town limits, or other high valued properties. These lands usually justify higher surveying accuracy. Bearings shall be shown in degrees, minutes and seconds and distances shall be shown to hundredths of a foot.

(2)(Class B) Suburban Land Surveys: Suburban surveys include properties surrounding the urban area of a town or city. The land represented by these surveys is often valuable, but more important it is land whose value is by definition rapidly increasing. Bearings shall be shown in degrees, minutes and seconds and distances shall be shown to hundredths of a foot.

(3)(Class C) Rural Land Surveys: Rural surveys include properties located outside suburban properties. Bearings shall be shown in degrees and minutes or less and distances shall be shown to hundredths of a foot.

(4)(Class D) Farm and Timber Land Surveys: Timber surveys include properties located throughout the State and represent land which may be cultivated; may provide space for farm houses and buildings; or may be employed as timber land. Bearings shall be shown in degrees and minutes or less and distances to the nearest tenth of a foot or less.

(5)(Class E) Vertical Control Surveys: Surveys involving vertical control (leveling) for land areas where a common datum is necessary shall be classified on the basis of accuracy.

(a) Urban Control: Control loops employed for commercial, industrial, or urban land surveys shall be executed with a precision or error of closure not to exceed in feet  $0.04\sqrt{m}$  (m = number of miles in the level circuit)

(b) Other: Other leveling surveys shall be conducted with a precision or error of closure not to exceed in feet  $0.10\sqrt{m}$  (m = number of miles in the level circuit). The VRS will achieve this accuracy when using when using a dual frequency GNSS receiver, PDOP less than 3 in the absence of multipath.

C. Table of Classifications:

Classification	A Urban Surveys	B Suburban Surveys	C Rural Surveys	D Farm & Timber Surveys
Unadjusted Linear Closure				
Closure (Minimum)	1:10000	1:7500	1:5000	1:3000
Angular Closure (Maximum)	$15''\sqrt{N}$	$20''\sqrt{N}$	$30''\sqrt{N}$	$50''\sqrt{N}$
Location of Improvements, Structures, Paving, Etc.: (Tie Measurement)	$\pm 0.1'$	$\pm 0.2'$	$\pm 1.0'$	$\pm 2.0'$

N = Number of Points in Traverse

As an option:

Relative Positional Accuracy

$0.07' + 50 \text{ PPM}$  or  $0.07' + 1/20,000 * \text{Perimeter}$  (95% confidence level).

The VRS can achieve of a Relative Positional Accuracy of  $0.07'$  with a 95% confidence level and therefore can be used for all Classifications

49-450. Plats and Platting.

A. A plat, as defined by this manual, is an accurate graphical representation, neatly lettered and properly dimensioned, report of a survey made by a Surveyor of a finite piece of real property, including pertinent data and appropriate information.

B. A survey requiring a plat should be accurately presented and should reveal all of the pertinent information developed by the survey.

#### 49-460. Survey Types and Requirements.

A. General Property Surveys: The following general requirements apply to all survey types included in this manual, other than GIS Surveys and Photogrammetric Surveys (see section 49-450-D and section 49-450-E of these standards for the general requirements of these surveys).

(1) The size of the plat should conform to the requirements of the Clerk of Court, Register of Deeds or the Register of Mesne Conveyance of the county in which the plat is to be recorded with minimum size to be eight and one-half inches by eleven inches.

(2) A plat shall be a print or tracing, signed and sealed with the surveyor's impression seal.

(3) All survey plats shall have a title and contain the following information:

(a) The embossed seal and the signature of the Surveyor responsible for the full conduct of the survey;

(b) A location map and/or adequate descriptive location of the property surveyed;

(c) The state, county and/or city in which the property is located;

(d) The name of the owner, company or agent of the property who requested the survey document;

(e) The date the field survey was completed;

(f) A graphic scale;

(g) A numerical scale;

(h) The name, registration number, address and phone number of the land surveyor.

(i) A certification executed by the Surveyor which will contain a statement of the class of the survey performed as follows:

"I hereby state that to the best of my professional knowledge, information, and belief, the survey shown hereon was made in accordance with the requirements of the Standards of Practice Manual for Surveying in South Carolina, and meets or exceeds the requirements for a Class \_\_ survey as specified therein."

(j) The area of the parcel of tract surveyed will be shown consistent with the class of survey or at least to the nearest one-hundredth (0.01) of an acre.

(k) At least one corner of the property surveyed shall be referenced so as to form a tie-line which can be used to help establish or verify the correct location of the property.

(l) The distances to the nearest intersections of a street or right-of-way shall be shown on the survey document.

(m) The North arrow shall be shown and shall be accurately correlated with the courses so that it is accurately positioned and designated as astronomic, grid or magnetic.

(n) All property lines shall be defined by bearings and horizontal distances and plotted to the scale indicated on the plat.

(o) Bearings and distances shall be shown consistent with the class of the survey.

(p) The Land Surveyor shall retrace the boundaries of the property being surveyed and set or reset monuments or corners consistent with the class of survey and accepted practices of boundary retracement. All monuments found or placed must be described in detail on the survey plat or drawing, with data given to show their location upon the ground in relation to the boundary lines. When a property corner is inaccessible and cannot be set, a witness or reference monument shall be placed on the boundary line and the offset distance noted on the survey document, plat or drawing. Control corners, monuments or property corners, on adjoining properties, used in the establishment or verification of property corners, shall be identified, located and defined, by course and distance, to an accuracy consistent with the class of survey.

(q) All new or re-established corners shall be:

1. Metal, concrete, or other durable material and detectable with conventional instruments for finding ferrous or magnetic objects;

2. No less than ½ inch in diameter for metal corners and 4 inches in diameter for concrete;

3. No less than 24 inches in length;

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4. If the corner location falls on pavement, concrete, or other material where one of the above cannot be placed, it is permissible to use nails, spikes, scribes, etc. in or on the surface;

5. In place prior to the signing, sealing and issuance of the plat.

(r) Where a boundary is formed by a curved line, the curve will be defined by curve data to include the radius, delta arc length and the long chord, by course and distance. The curve may also be defined as a traverse of chords around curve. Chord shall be defined by course and distance.

(s) All visible items across the property line shall be indicated with their extent shown or noted on the survey plat/map. The use of the words projection or encroachment shall be at the discretion of the surveyor.

(t) Visible indications of easements and rights-of-way on the site (i.e. power lines, etc.), obvious and apparent at the time of the survey or known to the surveyor, shall be shown and shall include their widths, if known.

(u) Cemeteries and burial ground located within the premises surveyed shall be located and shown upon the drawing, plat or map if obvious and apparent observed by the surveyor at the time of the survey, or if knowledge of their existence and location is furnished to the land surveyor prior to or during the performance of the survey.

(v) Lot and block numbers and/or the full names of adjoining land owners, and the names and/or numbers of principal highways, roads, streets or railroads, shall be shown, on the plat, with their rights-of-way. The plat book and page number of the subdivision as recorded by the Register of Mesne Conveyance, Register of Deeds or Clerk of Court of the county where the survey document is recorded should be included, if known.

(w) Boundaries formed by water courses shall be located and plotted to scale as shown in the title.

(x) If calculated lines are not shown, traverse lines and/or off-set lines used to close water course boundaries shall be shown, plotted to scale, and defined by course and distance. Note "Creek the line" where applicable.

(y) Maps prepared partially or entirely from reference or source data, such as compiled maps, do not represent land surveys as defined herein, and shall be clearly marked accordingly. Compiled maps must have a prominently displayed statement that the said document does not represent a land survey and is unsuitable for deeding of property or recordation.

(z) Plot plans representing planned locations prepared for city, county, state, federal governmental or other uses may be signed and sealed. A prominent statement shall be placed on the face of the document stating "This plot plan does not represent a land survey, was not prepared for recordation, and is not suitable for deeding of property. No ground survey was performed."

B. Closing/Loan or Mortgage Surveys: In addition to the requirements set forth in Section 49-460 A., General Property Surveys, the following applies to closing/loan or mortgage surveys:

(1) If a survey is all or a portion of a lot which is part of or adjoining a recorded subdivision, lot and block numbers or other designations including those of adjoining lots must be shown on the drawing.

(2) Structures shall be dimensioned to show size and location in relation to the boundary.

(3) Location distances are to be measured perpendicular from the closest side and front lines.

(4) Types of construction should be noted.

(5) Physical features obvious and apparent at the time of the survey to the surveyor such as storm drains, power lines, etc. on the subject property shall be shown and plotted to scale.

(6) Accuracy requirements of residential lots shall be consistent with the class of survey or a maximum closure of 0.05 foot, whichever is less restrictive.

(7) A certification shall be executed by the Surveyor as follows:

"I hereby state that to the best of my professional knowledge, information, and belief, the survey shown herein was made in accordance with the requirements of the Standards of Practice Manual for Surveying in South Carolina, and meets or exceeds the requirements for a Class \_\_ survey as specified therein; also there are no visible encroachments or projections other than shown."

C. Topographical Surveys: The following applies to topographical surveys:

(1) Structures shall be shown in relation to the boundary.

(2) Physical features obvious and apparent at the time of the survey to the surveyor such as storm drains, sanitary sewers, power lines, gas lines and water lines on the subject property shall be shown and plotted to scale.

(3) Elevations may be shown as spot elevations and/or contours.

(4) Contour intervals shall be noted.

(5) The vertical and horizontal error of contour lines and physical features shown shall not exceed one-half the contour interval.

(6) An on-site temporary bench mark shall be established with reference to datum, preferably NGVD and plotted to scale as shown on the title.

(7) The following items from Section 49-460 A. (3) shall be used when a general property survey is not made in conjunction with the topographic survey: a through h, l through n, and t through w.

(8) Where the property boundaries are not surveyed, the source from which the boundary data was taken must be clearly noted thereon.

(9) A certification shall be executed by the Land Surveyor which will contain a statement as follows:

“I hereby state that to the best of my professional knowledge, information, and belief, the survey shown herein was made in accordance with the requirements of the Standards of Practice Manual for Surveying in South Carolina, and meets or exceeds the requirements as specified therein.”

D. Geographic Information System Surveys: The following applies to Geographic Information System Surveys.

(1) Purpose: The purpose of these standards is to provide the Surveyor with a guideline for surveys that provide the location of infrastructure information used in a geographic information system (GIS). The primary objective of this standard is to insure that surveyed information in a GIS is reliable and can be used to make definitive decisions. These standards are not to be used in place of professional judgment.

(2) The Survey: Geographic information system (GIS) surveys are defined as the measurement of existing surface and subsurface features for the purpose of determining their accurate geospatial location for inclusion in a GIS database. All GIS surveys as they relate to property lines, rights-of-way, easements, subdivisions of land, the position for any survey monument or reference point, the determination of the configuration or contour of the earth's surface or the position of fixed objects thereon, and geodetic surveying which includes surveying for determination of the size and shape of the earth both horizontally and vertically and the precise positioning of points on the earth utilizing angular and linear measurements through spatially oriented spherical geometry, shall be performed by a Surveyor who is a licensee of this Board.

The Surveyor shall select the proper equipment and methods necessary to achieve at least the Minimum Horizontal and Vertical Accuracy required in Sections 5a and 5b of these standards. The survey work will be executed in a professional manner by the Surveyor or by personnel under the direct personal supervision of the Surveyor. In the event that more stringent survey requirements are required for a given project than what is provided for herein, the more stringent requirements shall be adhered to.

(3) Coordinate values: Coordinate values should be in the South Carolina State Plane Coordinate System or Geographic Positions based on the National Coordinate System. Horizontal coordinate values should be in the North American Datum of 1983 (NAD 83) 2007 or the most current datum published by the National Geodetic Survey (NGS). Vertical coordinate values should be in the North American Vertical Datum of 1988 (NAVD 88) or the most current datum published by the National Geodetic Survey (NGS). If coordinates are not referenced to the National Coordinate System, identify the local coordinate system used and its relationship to the National Coordinate System. Coordinates shall be given in either metric or English units. The English unit in South Carolina is the international foot.

(4) Results: The results of the survey shall be transmitted to the client in the form of a drawing in a digital format. The following information shall be included in the drawing or in the Federal Geographic Data Committee (FGDC) Metadata and certified to by the Professional Surveyor in responsible charge;

(a) The accuracy classification to which the data was gathered.

(b) The methods and procedures used to obtain the data, including but not limited to: equipment, (i.e. global positioning system, theodolite and electronic distance meter, transit and tape), documentation of positional inaccuracies, control points, bench marks, and PDOP levels for GPS surveys.

(c) Date of the survey work.

(d) Datum used for the survey.

(5) Accuracy - General: The minimum positional accuracy of the survey data is a Geospatial Positional Accuracy that is relative to the mapping scale, and therefore it is the accuracy of the base map on which the GIS is based. The reporting methodology shall be in accordance with the Federal Geographic Data Committee, Geospatial Positioning Accuracy Standards, Part 1 Reporting Methodology. The Geospatial Position Accuracy

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shall be reported by positional accuracy as defined in two components: horizontal and vertical. Horizontal Positional Accuracy is the radius of the circle of uncertainty, such that the true or theoretical location of the point falls within that circle 95-percent of the time. Horizontal Accuracy may be tested by comparing the planimetric coordinates of surveyed ground points with the coordinates of the same points from an independent source of higher order. Vertical Positional Accuracy is a linear uncertainty value, such that the true or theoretical location of the point falls within +/- of that linear uncertainty value 95-per cent of the time. Vertical Accuracy may be tested by comparing the elevation of surveyed ground points with the elevations of the same point determined from a source of higher accuracy.

(a) Horizontal Accuracy: The horizontal accuracy is based upon the American Society of Photogrammetry and Remote Sensing (ASPRS) Standard for Class 2 and reported in agreement with the National Standard for Spatial Data Accuracy. The NSSDA Horizontal Positional Accuracy Statistic at the 95% confidence level is determined by multiplying the Root Mean Square Error (RMSE) of the data set by 1.7308.

Acceptable Base Mapping Scale of LIS/GIS	Positional Accuracy Statistic of Survey Data
1"= 20 ft.	0.7 feet
1"= 50 ft.	1.7 feet
1"= 100 ft.	3.5 feet
1"= 200 ft.	6.9 feet
1"= 400 ft.	13.8 feet
1"= 500 ft.	17.3 feet
1"= 1000 ft.	34.6 feet
1"= 2000 ft.	69.2 feet

(b) Vertical Accuracy: The vertical accuracy is based upon the ASPRS Standard for Class 1 and reported in agreement with the National Standard for Spatial Data Accuracy. The NSSDA Vertical Positional Accuracy Statistic at the 95% confidence level is determined by multiplying the Root Mean Square Error (RMSE) of the data set by 1.9600.

Acceptable Base Mapping Contour Interval	Positional Accuracy Statistic of Survey Data
1 foot	0.7 feet
2 feet	1.3 feet
5 feet	3.2 feet
10 feet	6.5 feet
15 feet	9.7 feet

(6) Certification: A certification shall be executed by the Surveyor which will contain a statement of the class of survey performed as follows:

"I hereby state that to the best of my professional knowledge, information, and belief, the GIS survey shown herein was made in accordance with the requirements of the Standards of Practice Manual for Surveying in South Carolina, and meets or exceeds the requirements as specified therein."

E. Photogrammetric (Airborne and Spaceborne) Surveys:

(1) Airborne and spaceborne surveys are defined as the use of photogrammetry, LIDAR, IFSAR, or other similar measurement technologies for obtaining reliable information about physical objects and the environment, including terrain surface, through the process of recording, measuring, and interpreting images and patterns of electromagnetic radiant energy and other phenomena. This Rule establishes minimum allowable photogrammetric production procedures and standards for photogrammetric mapping and digital data production.

(2) Production procedures for topographic and planimetric mapping surveys shall be in accordance with the standards established by Chapter 3 of the Federal Geographic Data Committee (FGDC) Geospatial Positioning Accuracy Standard and applicable extensions and revisions. These standards are incorporated by reference including subsequent amendments and editions.



(3) Topographic or planimetric maps, orthophotos, or related electronic data, unless clearly marked as "Preliminary Map," shall meet contractually specified FGDC Standards for horizontal and vertical accuracies (in the absence of specified standards, the National Map Accuracy Standards apply) and shall be sealed, signed and dated by the licensee.

(4) When the issued product is a digital (electronic) data set, or a map or document consisting of more than one sheet or otherwise cannot be signed and sealed, a project report shall be certified, signed and sealed. Such report shall be clearly marked "Preliminary" if applicable.

(5) Ground control for topographic and planimetric mapping projects shall be in South Carolina State Plane Coordinate System grid coordinates, NAD83/2007, and distances in International feet or meters. A minimum of one permanent project vertical control point shall be shown.

(6) A project map or report shall contain the applicable following information:

- (a) Date of original data acquisition;
- (b) Altitude of sensor and sensor focal length, as applicable;
- (c) Date of document or data set compilation;
- (d) If hard copy product is produced, the maps shall contain a north arrow, map legend, final document scale, including barograph, and contour interval, as applicable;
- (e) Coordinate system for horizontal and vertical denoting SI (System International English units (i.e., NAD83 and NAVD 88, assumed, or other coordinate system);
- (f) A list or note showing the control points used for the project. The minimum data shown for each point shall include: physical attributes (i.e. iron rod, railroad spike, etc), latitude and longitude (or Easting and Northing Grid coordinates), and elevation, as applicable;
- (g) If other data is included, the source and accuracy of those items must be clearly indicated;
- (h) A statement of accuracy complying with contractually specified FGDC standards consistent with Paragraph (c) of this Rule;
- (i) For topographic maps or data sets, contours in areas obscured by man-made or natural features shall be uniquely identified or enclosed by a polygon clearly identifying the obscured area. The accuracies of the contours or of features in this obscured area shall be noted "No reliance is to be placed on the accuracy of these contours";
- (j) A vicinity map depicting the project location shall appear on the first sheet of all hard copy maps or in the report accompanying digital files;
- (k) Company name, address and phone number; and
- (l) The name of the client for whom the project was conducted.

(7) A certificate, substantially in the following form, shall be affixed to all maps or reports:

"I hereby state that to the best of my professional knowledge, information, and belief, that this photogrammetric project was performed in accordance with the requirements of the Standards of Practice Manual for Surveying in South Carolina, and meets or exceeds the requirements as specified therein."

(\*) Documents transmitted electronically shall have the computer-generated seal removed from the original file and a copy of the project report shall be signed, sealed and sent to the client. The electronic data shall have the following inserted in lieu of the signature and date:

"This document originally issued and sealed by (name of sealer), (license number), on (date of sealing). This electronic media shall not be considered a certified document. See the project report for certificate and seal."

F. Right of Way Surveys: Right-of-way surveys are surveys of the boundaries of a strip, area or parcel of land being used for some designated public or private use. When these rights of way are taken in fee simple, the surveys and plats shall be performed in accordance with the requirements of Section 49-460-A "General Property Surveys."

49-470. Methods of Marking Property Boundaries.

A. Corner Tree: "X" and three (3) chops on the sides where the line enters and leaves the tree.

B. Corner Witness Tree: One (1) blaze and three (3) chops or three (3) chops facing the corner.

C. Side Line Tree: Two (2) chops facing the property line.

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D. Property Line Tree or Center Line Tree: One (1) blaze and two (2) chops, at points where the line enters and leaves the tree.

E. Inaccessible Point: In the event a corner cannot be marked or monumented, one or more witness monuments or metal stakes shall be placed on the boundary line and described by bearings and/or distances so that the inaccessible point may be located accurately on the ground.

F. Boundary Monument or Witness Monument: It is recommended that every new boundary monument or witness monument be identified with a durable marker or cap bearing the name of the surveying company or the land surveyor in responsible charge of the survey. In the event the location falls on pavement, concrete, or other material where it cannot be marked with a cap, it is permissible to use spikes or scribes in or on the surface.

### 49-480. Land Descriptions.

A. Land Description: A land description is the detailed statement of appropriate information necessary to locate, relocate, or define the boundaries of a certain area or tract of land.

(1) A land description can be part of a land survey and can be used in connection with the preparation of deeds or similar documents.

(2) It is the surveyor's responsibility to make certain that the surveyor's description is complete and proper. The fact that some element or object which should be described is not included in the above does not justify the surveyor's omitting it from the description.

B. Preparing a Description: In a land survey the land description may be prepared by the surveyor. The writing of a deed is the practice of Law and is not the practice of surveying. In a description the full name, address and signature of the surveyor, his registration number and seal, the date the land description was prepared, and the date of survey from which the information was procured, or the book and page number of the recorded map or deed, if it is used in preparing the description, shall appear as part of the document.

C. Types of Land Descriptions and Their Content: In describing a lot located in a subdivision by number; the plat or map must be referenced with the name of the subdivision, the surveyor's name, the date, the township and the general location of the property. In addition, the book and page number in which the particular lot is recorded shall be included.

D. Metes and Bounds Description: A metes and bounds description shall include the general location of the tract or lot with sufficient accuracy such that the tract can be readily located on the ground. This is commonly known as a "being clause" and it should also include the source of title of the tract or lot. The point of beginning must be selected such that it can be readily and accurately located from some previously established monument or corner of record and can be readily described. The description shall include the names of adjoining property owners on all lines and at all points. The monument or marker at each corner shall be described. A metes and bounds description shall describe all courses in logical sequence around a tract or lot in a clockwise direction such that the ending point is the beginning point. All lines adjacent to streets, roads, or other rights-of-way shall be referenced to these and all pertinent distances and curve data shall be listed in addition to the parcel's area.

### 49-490. Instruments and Apparatus.

A. Surveyor's Instruments: Surveying in South Carolina shall be conducted in the field with properly calibrated equipment appropriate for the tolerance of work being performed. The equipment shall be tested at regular intervals and adjusted to maintain its optimum accuracy.

B. Tapes: All tapes shall be of alloy or carbon steel and shall be certified as USBS quality with a known coefficient of temperature and tension corrections, and graduated in feet and decimal parts of a foot or calibrated to another tape or means that has been certified by the USBS or NGS.

C. Baselines: Baselines have been established by NGS throughout the state for the purpose of calibrating electronic distance measuring devices. Some of these baselines have 100' monuments to calibrate tapes. Surveyors shall utilize these baselines to insure calibration of their electronic measuring equipment and tapes. Calibration records for each instrument and tapes shall be maintained by the Surveyor and shall be made available when required by the Board or the courts.

ARTICLE 6.

CONTINUING PROFESSIONAL COMPETENCY

49-600. Purpose.

- A. Professionals licensed to practice engineering, surveying, or engineering and surveying in South Carolina are required to demonstrate a continuing development of professional competency.
- B. Each licensee shall meet the continuing professional competency requirements of these regulations as a condition for biennial registration renewal of license. Engineers and Surveyors continuously licensed by this Board prior to January 1, 1969 will be exempt from continuing education requirements.

49-601. Definitions.

Terms used in this section are defined as follows:

- (1) Professional Development Hour (PDH) -A contact hour (nominal) of instruction or presentation. The common denominator for other units of credit.
- (2) Continuing Education Unit (CEU) -Unit of credit customarily used for continuing education courses.
- (3) College/Unit Semester/Quarter Hour -Credit for courses in EAC/ABET approved programs or other related college courses approved in accordance with provision 49-604 of this section.
- (4) Course/Activity -Any qualifying course or activity with a clear purpose and objective which will maintain, improve, or expand the skills and knowledge relevant to the licensee’s field of practice.
- (5) Dual Licensee -A person who is licensed as both an engineer and a surveyor.

49-602. Requirements.

- A. Each licensee is required to obtain 30 PDH units during each biennial renewal period.
- B. If a licensee exceeds the requirements in any renewal period, a maximum of 15 PDH units may be carried forward into the subsequent renewal period.
- C. PDH units may be earned as follows:
  - (1) Successful completion of college courses.
  - (2) Successful completion of continuing education courses.
  - (3) Successful completion of correspondence, televised, videotaped, and other short courses/tutorials.
  - (4) Attending qualifying seminars, in-house courses, workshops, or professional or technical presentations made at meetings, conventions, or conferences.
  - (5) Teaching or instructing in (1) through (4) above.
  - (6) Authoring published papers, articles, or books.
  - (7) Active participation in professional or technical societies.
  - (8) Successful application for patents.

49-603. Units of Credit.

The conversion of other credit to PDH units is as follows:

- (1) 1 College or unit semester hour .....45 PDH
- (2) 1 College or unit quarter hour .....30 PDH
- (3) 1 Continuing Education Unit ..... 10 PDH
- (4) 1 Hour of professional development for attendance in course work, seminars, or professional or technical presentations made at meetings, conventions, or conferences .....1 PDH
- (5) For teaching as in 49-602C(5) .....PDH Credits are doubled
- (6) Each published technical or professional paper, article or book .....10 PDH

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- (7) Active participation in a professional and technical society .....2 PDH
- (8) Each patent .....10 PDH

49-604. Determination of Credit.

The Board has final authority with respect to approval of courses, credit, PDH value for courses and other methods of earning credit.

- (1) Credit for college or community college approved courses will be based upon course credit established by the college.
- (2) Credit for qualifying seminars and workshops will be based on one PDH unit for each hour of attendance. Attendance at qualifying programs presented at professional and/or technical society meetings will earn PDH units for the actual contact time of each program.
- (3) Credit determination for activities 49-603-(6) and 49-603-(8) is the responsibility of the licensee, subject to review as required by the Board.
- (4) Credit for activity 49-603-(7), active participation in professional and technical societies is limited to 2 PDH units per organization, with a maximum of 4 PDH units per year, and requires that a licensee serve as an officer, or actively participate in a committee of the organization, or have at least a 50% documented attendance at meetings held not less than eight times per year. PDH credits for participation in a professional or technical society are not earned until the end of the administrative year of the society.
- (5) Teaching credit is valid for teaching a course or seminar for the first time only. Teaching credit does not apply to full-time faculty.

49-605. Record Keeping.

A. The responsibility for maintaining records used to support credits claimed is that of the licensee. Records required include, but are not limited to:

- (1) A log showing the type of activity claimed, sponsoring organization, location, duration, instructor’s or speaker’s name, and PDH credits earned;
- (2) Attendance verification records in the form of completion certificates or other documents supporting evidence of attendance; or
- (3) Records as maintained by the National Society of Professional Engineers (NSPE) Professional Development Registry for Engineers and Surveyors (PDRES), or other recognized repositories for such records.

B. These records must be maintained for a minimum period of three years during which copies may be requested by the Board for audit verification purposes.

C. If, upon review or audit by the Board, any or all PDH units claimed by the license holders are disallowed, the license holder will be allowed a twelve month period during which such deficiencies must be remedied.

49-606. Exemptions.

A licensee may be exempt from the professional development educational requirements for one or more of the following reasons:

- A. New licensees by way of examination or comity shall be exempt for their first renewal period.
- B. A licensee serving on temporary active duty in the armed forces of the United States for a period of time exceeding one hundred twenty (120) consecutive days in a year shall be exempt from obtaining the professional development hours required during that year.
- C. Licensees experiencing physical disability, illness, or other extenuating circumstances as reviewed and approved by the Board may be exempt. Supporting documentation must be furnished with any such exemption request made to the Board.

D. Licensees who list their occupation as “Retired” on the Board approved renewal form and who further certify that they are no longer receiving any remuneration from providing professional engineering or surveying services shall be exempt from requirements for professional development hours. In the event such a person elects to return to the active practice of professional engineering or surveying, professional development hours must be earned, before returning, for each year exempted, not to exceed the requirement for two years.

49-607. Reinstatements.

A. A licensee may bring an inactive license to active status by obtaining all delinquent PDH units, provided other provisions of the statutes are met.

B. If the total number of PDH units required to become current exceeds 30, then 30 shall be the maximum number of PDH units required.

49-609. Dual License Holders.

The total number of PDH units required shall be the same as that required for a single license holder; but at least ten units shall be obtained separately for each profession.

49-610. Reporting Forms.

A. All renewal applications will contain a statement of verification that the licensee has obtained the required professional development hours at the time of renewal. Upon audit, the licensee must report the course date, sponsoring organization, location, activity title, brief description and PDH’s claimed and provide documentation of attendance or completion as well as any other information required by the Board.

B. Failure to fulfill the professional development requirements or to comply with the Board’s audit shall be considered a violation of the Registration Law for Professional Engineers and Surveyors.

**Fiscal Impact Statement:**

There will be no cost incurred by the State or any of its political subdivisions.

**Statement of Rationale:**

The South Carolina Board of Registration for Professional Engineers and Surveyors proposes to amend current regulations to clarify and conform to 2007 Act 58.

## 454 FINAL REGULATIONS

Document No. 4019  
**DEPARTMENT OF LABOR, LICENSING, AND REGULATION**  
**OFFICE OF OCCUPATIONAL SAFETY AND HEALTH**  
CHAPTER 71

Statutory Authority: 1976 Code Sections 41-3-40 and 41-15-210

71-400 through 71-410. Occupational Safety and Health Act

### **Synopsis:**

The South Carolina Department of Labor, Licensing and Regulation, Office of Occupational Safety and Health is amending Regulations 71-400 through 71-410 to reflect recent amendments made to the South Carolina Occupational Safety and Health Act by 2008 Act 188.

### **Instructions:**

The following sections of regulation 71-400 through 71-410 are modified as provided below.

### **Text:**

SUBARTICLE 4.  
ENFORCEMENT OF VIOLATIONS

71-400. Definitions.

As used in this Subarticle, unless the context clearly requires otherwise

A. "Act" means Act 379, South Carolina Acts and Joint Resolutions, 1971, as amended, and State Laws enacted by the South Carolina General Assembly.

B. "Administrator" means that person in the South Carolina Department of Labor, Licensing and Regulation, who is designated by the Director as responsible for the supervision of the activities of the Occupational Safety and Health Division.

C. "Affected Employee" shall mean an employee of a cited employer who is exposed to the alleged hazard described in the citation, as a result of his employment.

D. "Agency" means the South Carolina Department of Labor, Licensing and Regulation.

E. "Authorized Employee Representative" means a labor organization which has a collective bargaining relationship with the cited employer and which represents affected employees.

F. "Citation" means a written communication issued by the Director or his designated representative pursuant to Section 41-15-280, Code of Laws, State of South Carolina, 1976, as amended. For the purpose of this section, the word "citation" includes "amended citation".

G. "Compliance Manager" means that person in the Department of Labor, State of South Carolina, who is designated by the Administrator as responsible for inspections made pursuant to the State's Occupational Safety and Health Laws.

H. "Day" means calendar day.

I. "Director" means the Director, South Carolina Department of Labor, Licensing and Regulation.

J. "Employee" means any person employed by an individual, partnership, joint venture, cooperative association or corporation doing business in the State, or by the State of South Carolina or any political subdivision thereof.

K. "Employer" means any individual, partnership, joint venture, cooperative association or corporation doing business in the State and the State of South Carolina and any political subdivision thereof which employs one (1) or more persons to perform work within the State of South Carolina.

L. "Industrial Hygienist" means any individual commissioned by the Director to enforce health statutes, rules and regulations.

M. "Notification of Proposed Penalty" means a written communication issued by the Director or his designated representative to an employer to notify the employer of penalties proposed under Section 41-15-320, Code of Laws, State of South Carolina, 1976, as amended.

N. "OSH Compliance Officer" means any individual commissioned by the Director to enforce safety and health statutes, rules and regulations.

O. "Party" means any individual, partnership, joint venture, cooperative association, corporation, State of South Carolina or any political subdivision thereof who shall have a vested interest to participate in a hearing conducted in accordance with this subarticle.

P. "Person" means any individual, partnership, joint venture, cooperative association, corporation, organization of employees, or the State of South Carolina or any political subdivision thereof.

Q. "Representative" means any person, including an authorized employee representative, authorized by a party, survivor, or intervener to represent him in a proceeding.

R. "Rules and Regulations" means any rules and regulations promulgated and adopted by the Department.

S. "State" means the State of South Carolina.

#### 71-401. Citation; Notice of De Minimis Violation.

A. The Compliance Manager shall review the report of inspection of each OSH Compliance Officer and Industrial Hygienist. If the report indicates a violation of the state statutes or rules and regulations, there shall be issued to each employer, by certified mail or by personal service, a citation(s). Any citation shall be issued with reasonable promptness after the termination of the inspection. No citation shall be issued after the expiration of six (6) months following the occurrence of the inspection. Citations shall detail the conditions and circumstances of the violation, and refer to applicable statutes, rules and regulations or order alleged to have been violated. The citation shall also fix a reasonable time for abatement of the violation(s). Where a citation is issued as a result of a request for inspection under Subarticle 5, R. 71-508, copies of the citation shall also be sent by certified mail to the employee or employee representative who made such request. If appropriate, a citation will be issued to an employer even where the employer abates immediately.

B. Notice of De Minimis Violation. The Compliance Manager shall review the report of inspection of each OSH Compliance Officer and Industrial Hygienist. If the report indicates a violation of the state statutes or rules and regulations which have no direct or immediate relationship to safety or health, the Compliance Manager may issue a notice of de minimis violation if he shall determine that such notice shall be beneficial to the health and safety of employees. Such notice of de minimis violation shall be in the form of a recommendation only and may not be contested.

C. The issuance of a citation does not constitute a determination that a violation of state statutes or rules and regulations has occurred, but it is an allegation that such may have occurred, unless there is a failure to contest as provided for in accordance with Articles 3 and 5 of Chapter 23, Title 1 and the rules of the Administrative Law Court, or, if contested, unless the violation is determined have existed by a final order of the Administrative Law Court or by a final adjudication in the courts of this State.

#### 71-402. Proposed Penalty.

A. After, or concurrent with, the issuance of a citation, and within a reasonable time of the inspection, the Compliance Manager shall notify the employer by certified mail or by personal service of the proposed penalty under Section 41-15-300, Code of Laws of South Carolina, 1976, as amended, or that no penalties are proposed.

B. The Compliance Manager or his representative shall determine the amount of any proposed penalty, giving due consideration to the appropriateness of the penalty with respect to the size of the business of the employer being charged, the gravity of the violation, the good faith of the employer, and the history of previous violations in accordance with Section 41-15-320, Code of Laws of South Carolina, 1976, as amended.

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C. Appropriate penalties may be proposed with respect to alleged violations even though after being informed of such an alleged violation by the OSH Compliance Officer or the Industrial Hygienist, the employer immediately abates or initiates steps to abate such violation. A penalty shall not be proposed for de minimis violations.

D. The issuance of a proposed penalty does not constitute an obligation unless there is a failure to contest the proposed penalty as provided in accordance with Articles 3 and 5 of Chapter 23, Title 1 and the rules of the Administrative Law Court, or, if contested, unless the proposed penalty is determined to be an obligation under Section 41-15-320, Code of Laws of South Carolina, 1976, as amended, by an order of the Administrative Law Court or upon final adjudication in the courts of this State.

### 71-403. Posting of Citation.

A. Upon receipt of a citation under the Act, the employer shall immediately post such citation, or a copy thereof, unedited, at or near each place an alleged violation referred to in the citation occurred, except as provided below. Where, because of the nature of the employer's operations, it is not practical to post the citation at or near each place of alleged violation, such citation shall be posted, unedited, in a prominent place where it will be readily observable by all affected employees. The employer shall take steps to ensure that the citation is not altered, defaced, or covered by other material. Notices of de minimis violations need not be posted.

B. Each citation, or a copy thereof, shall remain posted until the violation has been abated, or for three working days, whichever is later. The filing by the employer of a notice of contest under R. 71-407 shall not affect his posting responsibility under this section.

C. Any employer failing to comply with the provisions of paragraphs A and B of this regulation shall be subject to citation and penalty in accordance with the provisions of Section 41-15-320, Code of Laws of South Carolina, 1976, as amended.

### 71-404. Failure to Correct Violation for Which Citation Has Been Issued.

A. If any subsequent inspection discloses that an employer has failed to correct an alleged violation for which a citation has been issued within the period permitted for its correction, the Compliance Manager shall notify the employer by certified mail or by personal service of such failure and of the penalty proposed under Section 41-15-320, South Carolina Code of Laws, 1976, as amended, by reason of such failure, and of a later date after which an additional penalty may be assessed for continued failure to correct the violation.

B. Any employer receiving a notification of failure to correct a violation and of proposed penalty may notify the Director, in writing, that he intends to contest such notification of proposed penalty or citation. Such right to contest notification of failure to correct a violation or proposed penalty may be made by the employee, as well as the employer, by notifying the Director, in writing. Such notice of contest shall comply with Articles 3 and 5 of Chapter 23, Title 1 and the rules of the Administrative Law Court.

C. Each notification of failure to correct a violation and of proposed penalty shall state that it will be deemed to be the final order of the Director and not subject to review by any court or agency unless, within twenty (20) days from the date of receipt of such notification, the employer notifies the Director in writing that he contests the notification or the proposed penalty. Such notice of contest shall comply with Articles 3 and 5 of Chapter 23, Title 1 and the rules of the Administrative Law Court.

### 71-405. Petition for Modification of Abatement.

A. Filing. If the employer has made a good faith effort to comply with the abatement period, but has not been able to do so by the prescribed date because of factors beyond his control, he may file a Petition for Modification of Abatement. The petition must be filed with the Compliance Manager no later than the end of the next working day following the date on which abatement was to have been completed. The petition shall state why the abatement cannot be completed within the prescribed time, the steps taken to achieve compliance, and what interim steps are being taken to protect the employees from the cited hazard. Affected employees and their authorized representative (if any) must be also notified in writing of the petition by



posting of the petition at the same location the citation is posted, and the petition shall remain posted for a period of ten (10) days.

B. Incomplete Petition for Modification of Abatement. Should a Petition for Modification of Abatement be submitted to the Compliance Manager which does not meet the requirements of this regulation, the Compliance Manager shall immediately notify the employer of the deficiency and may allow up to an additional five (5) days to meet the requirements. Incomplete Petitions for Modification of Abatement may be objected to by the Compliance Manager.

C. Objections to Petition for Modification of Abatement. Affected employees or their authorized representative may file an objection in writing to a petition for modification of abatement with the Compliance Manager. Failure to file such objection within ten (10) days of the date of posting of such petition or of service upon an authorized representative shall constitute a waiver of any further right to object to the petition unless good cause is shown for such failure. Where any petition is objected to by the Compliance Manager or affected employees, the petition, citation, and any objections shall be immediately forwarded to the Administrative Law Court for determination.

D. Service. Unless otherwise ordered, service may be accomplished by postage prepaid first class mail or by personal delivery. Service is deemed effective at the time of mailing (if by mail) or at the time of personal delivery (if by personal delivery). Service and notice to employees represented by an authorized employee representative shall be deemed accomplished in the manner prescribed in paragraph B of this regulation.

E. Failure to File. Where the employer fails to file with the Compliance Manager a Petition for Modification of Abatement within the time prescribed in paragraph A of this regulation, and the normal twenty (20) day period for citation contest has passed, the abatement period shall be deemed a final order of the Director unless good cause is shown for such failure. Where any filing required by this regulation is made or proposed to be made later than the period specified therefore herein, the Compliance Manager may nevertheless consider the merits of the objection or petition if he finds that there was a good cause for such delay and that such delay was not excessive. If the Compliance Manager shall determine that there was not good cause or that the delay was excessive, he shall recommend the denial of and thereby object to the Petition for Modification of Abatement in accordance with paragraph C of this regulation.

#### 71-406. Informal Conference.

A. Authority. At the request of either the employer, an affected employee, or representative of employees, the Compliance Manager or his designated representative may hold an informal conference for the purpose of discussing any issues raised by an inspection, citation, notice of proposed penalty, or notification of failure to correct violation. The settlement of any issue at such conference shall be subject to these rules and regulations of procedure. If the conference is requested by the employer, an affected employee or his representative shall be afforded an opportunity to participate, at the discretion of the Compliance Manager or his designated representative. Any party may be represented by legal counsel. No such conference or request for conference shall operate as a stay of the twenty (20) day period for filing a Notice of Protest, and no such conference or request for conference will be held or accepted subsequent to receipt of a Notice of Contest as defined in Articles 3 and 5 of Chapter 23, Title 1 and the rules of the Administrative Law Court.

B. Requesting Informal Conference. Request for an informal conference may be made orally or in writing to the Compliance Manager.

C. (Deleted).

D. Conduct of Informal Conference. The Compliance Manager shall conduct the informal conference or designate his representative to conduct same.

E. Location. Informal conferences may be conducted by the Compliance Manager or his representative at a site convenient to the party requesting such conference.

F. Time. Informal conferences will be conducted as soon as possible after such request is made.

G. Decision. To the extent possible a decision of the Compliance Manager or his designated representative will be made at the close of the informal conference and communicated promptly to the parties.

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### 71-407. Employer or Employee Contest.

A. Any employer to whom a citation or notice of proposed penalty has been issued may serve a notice of contest upon the Director that it does contest such citation, proposed penalty, abatement date, or any combination thereof in accordance with the rules of procedure of Articles 3 and 5 of Chapter 23, Title 1 and the rules of the Administrative Law Court.

B. Any employee or any employee representative of an employer to whom a citation or notice of proposed penalty has been issued, may serve a notice of contest upon the Director that it does contest such citation, proposed penalty, abatement date, or any combination thereof in accordance with the rules of procedure of Articles 3 and 5 of Chapter 23, Title 1 and the rules of the Administrative Law Court.

### 71-408. Failure to Contest.

Where the employer, employee or employee representative fails to file a notice of contest pursuant to the rules of procedure of the Administrative Law Court, the citation and proposed penalty shall be deemed a final order of the Director not subject to administrative review unless good cause is shown for such failure. Where the filing of notice of contest is made later than the period specified, the Director may nevertheless waive his objection to the late contest, if he finds that there was good cause for such delay and that the delay was not excessive.

### 71-409. Withdrawal, Modification or Amendment to Citation and Proposed Penalty.

A. The Occupational Safety and Health Division of the South Carolina Department of Labor, Licensing and Regulation may withdraw, modify or amend a citation and/or proposed penalty during the twenty (20) day period before the citation and/or proposed penalty becomes a final order of the Director, provided there has been no contest filed.

B. After the expiration of the twenty (20) day period or after Notice of Protest has been filed, the Director may on his own motion withdraw, modify or amend a citation and/or proposed penalty, provided same does not unduly prejudice the position of any party.

C. After the Notice of Protest is filed and received by the Administrative Law Court, any action to withdraw, modify, or amend a citation or proposed penalty shall be according to the rules of the Administrative Law Court.

### 71-410. Abatement Verification.

PURPOSE: OSHA's inspections are intended to result in the abatement of violations of the South Carolina Occupational Safety and Health Act. This section sets forth the procedures OSHA will use to ensure abatement. These procedures are tailored to the nature of the violation and the employer's abatement actions.

A. Scope and application. This section applies to employers who receive a citation for a violation of the Occupational Safety and Health Act.

B. Abatement certification.

(1) Within 10 calendar days after the abatement date, the employer must certify to OSHA (The Agency) that each cited violation has been abated, except as provided in paragraph (B)(2) of this section.

(2) The employer is not required to certify abatement if the OSHA Compliance Officer, during the on-site portion of the inspection:

(a) Observes, within 24 hours after a violation is identified, that abatement has occurred; and

(b) Notes in the citation that abatement has occurred.

(3) The employer's certification that abatement is complete must include, for each cited violation, in addition to the information required by paragraph (G) of this section that affected employees and their representatives have been informed of the abatement

Note to paragraph (B): Appendix A contains a sample abatement certification letter.

C. Abatement documentation.

(1) The employer must submit to the Agency, along with the information on abatement certification required by paragraph (B)(3) of this section, documents demonstrating that abatement is complete for each willful or repeat violation and for any serious violation for which the Agency indicates in the citation that such abatement documentation is required.

(2) Documents demonstrating that abatement is complete may include, but are not limited to, evidence of the purchase or repair of equipment, photographic or video evidence of abatement, or other written records.

D. Abatement plans.

(1) The Agency may require an employer to submit an abatement plan for each cited violation (except an other-than-serious violation) when the time permitted for abatement is more than 90 calendar days. If an abatement plan is required, the citations must so indicate.

(2) The employer must submit an abatement plan for each cited violation within 25 calendar days from the final order date when the citation indicates that such a plan is required. The abatement plan must identify the violation and the steps to be taken to achieve abatement, including a schedule for completing abatement and, where necessary, how employees will be protected from exposure to the violative condition in the interim until abatement is complete.

Note to paragraph (D): Appendix B contains a sample abatement plan form.

E. Progress reports.

(1) An employer who is required to submit an abatement plan may also be required to submit periodic progress reports for each cited violation. The citation must indicate:

- (a) That periodic progress reports are required and the citation items for which they are required;
- (b) The date on which an initial progress report must be submitted, which may be no sooner than 30 calendar days after submission of an abatement plan;
- (c) Whether additional progress reports are required;
- (d) The date(s) on which additional progress reports must be submitted.

(2) For each violation, the progress report must identify, in a single sentence if possible, the action taken to achieve abatement and the date the action was taken.

Note to paragraph (E): Appendix B contains a sample progress report form.

F. Employee notification.

(1) The employer must inform affected employees and their representative(s) about abatement activities covered by this section by posting a copy of each document submitted to the Agency or a summary of the document near the place where the violation occurred.

(2) Where such posting does not effectively inform employees and their representative(s) about abatement activities (for example, for employers who have mobile work operations), the employer must:

- (a) Post each document or a summary of the document in a location where it will be readily observable by affected employees and their representatives; or
- (b) Take other steps to communicate fully to affected employees and their representatives about abatement activities.

(3) The employer must inform employees and their representatives of their right to examine and copy all abatement documents submitted to the Agency.

(a) An employee or an employee representative must submit a request to examine and copy abatement documents within three (3) working days of receiving notice that the documents have been submitted.

(b) The employer must comply with an employee's or employee representative's request to examine and copy abatement documents within five (5) working days of receiving the request.

(4) The employer must ensure that notice to employees and employee representatives is provided at the same time or before the information is provided to the Agency and that abatement documents are:

- (a) Not altered, defaced, or covered by other material; and
- (b) Remain posted for three (3) working days after submission to the Agency.

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### G. Transmitting abatement documents.

- (1) The employer must include, in each submission required by this section, the following information:
  - (a) The employer's name and address;
  - (b) The optional report number to which the submission relates;
  - (c) The citation and item numbers to which the submission relates;
  - (d) A statement that the information submitted is accurate; and
  - (e) The signature of the employer or the employer's authorized representative.
- (2) The date of postmark is the date of submission for mailed documents. For documents transmitted by other means, the date the Agency receives the document is the date of submission.

### H. Movable equipment.

- (1) For serious, repeat, and willful violations involving movable equipment, the employer must attach a warning tag or a copy of the citation to the operating controls or to the cited component of equipment that is moved within the work site or between work sites.

Note to paragraph (H)(1): Attaching a copy of the citation to the equipment is deemed by OSHA to meet the tagging requirement of paragraph (H)(1) of this section as well as the posting requirement of 71-403 in this subarticle.

- (2) The employer must use a warning tag that properly warns employees about the nature of the violation involving the equipment and identifies the location of the citation issued.

Note to paragraph (H)(2): Non-Mandatory Appendix C contains a sample tag that employers may use to meet this requirement.

- (3) If the violation has not already been abated, a warning tag or copy of the citation must be attached to the equipment.
  - (a) For hand-held equipment, immediately after the employer receives the citation; or
  - (b) For non-hand-held equipment, prior to moving the equipment within or between work sites.
- (4) For the construction industry, a tag that is designed and used in accordance with 29 CFR 1926.20(b)(3) and 29 CFR 1926.200(h) is deemed by OSHA to meet the requirements of this section when the information required by paragraph (H)(2) is included on the tag.
- (5) The employer must assure that the tag or copy of the citation attached to movable equipment is not altered, defaced, or covered by other material.
- (6) The employer must assure that the tag or copy of the citation attached to movable equipment remains until:
  - (a) The violation has been abated and all abatement verification documents required by this regulation have been submitted to the Agency;
  - (b) The cited equipment has been permanently removed from service or is no longer within the employer's control; or
  - (c) The Court issues a final order vacating the citation.

Appendices Abatement Verification

Note: Appendices A through C provide information and non-mandatory guidelines to assist employers and employees in complying with the appropriate requirements of this section.

Appendix A: Sample Abatement Certification Letter (Non-mandatory)

(Name), Administrator  
S.C. Department of Labor, Licensing & Regulation OSHA  
Address of the Area Office (on the citation)

[Company's Name]  
[Company's Address]

The hazard referenced in Optional Report No. (inset 6-digit #) for violation identified as:  
Citation [insert #] and item [insert #] was corrected on [insert date] by:

---

Citation [insert #] and item [insert #] was corrected on [insert date] by:

---

Citation [insert #] and item [insert #] was corrected on [insert date] by:

---

Citation [insert #] and item [insert #] was corrected on [insert date] by:

---

Citation [insert #] and item [insert #] was corrected on [insert date] by:

---

I attest that the information contained in this document is accurate.

---

Signature

---

Typed or Printed Name

Appendix B: Sample Abatement Plan or Progress Report (Non-mandatory)

(Name), Administrator

S.C. Department of Labor, Licensing & Regulation – OSHA  
Address of Area Office (on the citation)

[Company's Name]  
[Company's Address]

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Check one:

- Abatement Plan
- Progress Report

Optional Report Number \_\_\_\_\_  
 Page \_\_\_\_\_ of \_\_\_\_\_  
 Citation Number(s)\* \_\_\_\_\_  
 Item Number(s)\* \_\_\_\_\_

Action	Proposed Completion Date (for Abatement Plans only)	Completion Date (for Progress reports only)
1. _____ _____	_____	_____
2. _____ _____	_____	_____
3. _____ _____	_____	_____
4. _____ _____	_____	_____
5. _____ _____	_____	_____
6. _____ _____	_____	_____
7. _____ _____	_____	_____

Date required for final abatement: \_\_\_\_\_  
 I attest that the information contained in this document is accurate.

\_\_\_\_\_  
 Signature

\_\_\_\_\_  
 Typed or Printed Name

Name of primary point of contact for questions: (optional)  
 Telephone Number: \_\_\_\_\_

\*Abatement plans or progress reports for more than one citation item may be combined in a single abatement plan or progress report if the abatement actions, proposed completion dates, and actual completion dates (for progress reports only) are the same for each of the citation items.

Appendix C --- Sample Warning Tag (Nonmandatory)

○

**WARNING:**

EQUIPMENT HAZARD  
CITED BY OSHA

EQUIPMENT CITED:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

HAZARD CITED  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

FOR DETAILED INFORMATION  
SEE OSHA CITATION POSTED AT:  
\_\_\_\_\_  
\_\_\_\_\_

**BACKGROUND COLOR—ORANGE**  
**MESSAGE COLOR--BLACK**

**Fiscal Impact Statement:**

There will be no cost incurred by the State or any of its political subdivisions.

**Statement of Rationale:**

The updated regulations will reflect recent amendments made to the Occupational Safety and Health Act (2008 Act 188) and will reflect the jurisdiction of the Administrative Law Court to review citations and notifications of failure to abate, with the associated abatement dates and proposed penalties.

## 464 FINAL REGULATIONS

Document No. 4041  
**DEPARTMENT OF LABOR, LICENSING AND REGULATION**  
**COMMISSIONERS OF PILOTAGE**  
CHAPTER 136

Statutory Authority: 1976 Code Sections 40-1-70 and 54-15-140

136-013. Pilot and Apprentice Age Limitations  
136-020. Short Branch Qualification  
136-070. Pilot Functions and Responsibilities  
136-099. Penalties

### **Synopsis:**

The Department of Labor, Licensing and Regulation, Commissioners of Pilotage, is revising Regulations 136-013, 136-020, 136-070, and 136-099 by updating the regulations in conformance with 2006 Act 237.

### **Instructions:**

136-013. Pilot and Apprentice Age Limitations.  
Replace as indicated below

136-020. Short Branch Qualification.  
A.-B. No substantive changes.  
C. Replace as indicated below  
D.-E. No substantive changes.

136-070. Pilot Functions and Responsibilities.  
A.-E. No substantive changes.  
F. Replace as indicated below  
G.-H. No substantive changes.

136-099. Penalties.  
A.-B. No substantive changes.  
C. Replace as indicated below

### **Text:**

136-013. Pilot and Apprentice Age Limitations.

The required physical rigors and necessary stamina render service as a pilot in the Lower Coastal Area to be such that no pilot seventy years or older will be registered.

136-020. Short Branch Qualification.

A. The term of the apprentice training and qualification program shall be followed by a period of not less than three years for advanced qualification as a short branch pilot.

B. With the consent of the apprentice who has passed the term of apprenticeship, the period of short branch qualification may be suspended for a period of time to be approved by the Commissioners. Under such circumstances, the Commissioners shall assure that the passed apprentice has completed a sufficient number of refresher round trips prior to licensure.



C. The various tonnage and draft limitations for each short branch shall be:

(1) Initial (first) Short Branch (six months) ...Limited to the average Gross Registered Tons rounded up to the next highest thousand for the previous calendar year and limited to the average deep draft, rounded up to the next even number of feet, said tonnage and draft averages will be for the previous calendar year.

(2) Second Short Branch (six months) ...No tonnage limit, deep draft limit to be the deep draft limit applicable in subparagraph (1) above, plus two feet.

(3) Third Short Branch (one year) ...No tonnage limit, deep draft limit to be the deep draft limit applicable in subparagraph (1) above, plus five feet.

(4) Fourth Short Branch (one year) ...No tonnage limit, deep draft limit shall be the deepest draft applicable to merchant vessels whose movements are not draft-restricted under Regulation 136-071A.

D. While undergoing advance qualification, short branch pilots may be observed by full branch pilots on board such vessels to which the short branch pilots may be assigned.

E. Upon the completion of an appropriate period of time for any particular short branch, the satisfactory completion of which shall be determined by the pilots, the pilots shall submit to the Commissioners a listing of every vessel piloted by the short branch pilot during that period as well as a synopsis of any difficulties encountered to demonstrate the performance of the short branch pilot.

#### 136-070. Pilot Functions and Responsibilities.

A. Pilot services shall be made available to the master of every inbound vessel that requires a state pilot pursuant to the 1976 Code Section 54-15-270.

B. Every pilot received on board a vessel for the Lower Coastal Area subject to the jurisdiction of the Commissioners shall remain on board such vessel while in transit between the pilot station and its terminal or anchorage. The transit shall begin on inbound vessels when the pilot assumes the control of the ship and shall end when the first line is passed to a pier, wharf or other waterfront facility, or until the vessel is anchored fast to the bottom. The transit shall begin on outbound vessels when the last line is passed or when the anchor is aweigh, and shall end when the pilot is discharged by the vessel's master, having arrived at that place on the bar where the adjoining depths of water are sufficient for safe navigation. The transit on shifting vessels shall be from the passing of the last line or weighing of the anchor until the first line is passed or the anchor is made fast to the bottom.

C. Every vessel described in the 1976 Code Section 54-15-270 requiring a state pilot shall receive on board such pilot to direct the vessel movement for every inbound and outbound transit of the port and for shifting berths and anchorages within the port. This requirement applies regardless of the source of vessel propulsion, be it self propelled or propelled by tugs. If the master or operator of any seagoing vessel requiring a state pilot shall refuse to receive on board a pilot, such circumstance shall be considered a "hazardous condition" pursuant to 33 CFR 160.203 and shall immediately be reported to the Coast Guard.

D. No pilot licensed by the Commissioners shall knowingly pilot any vessel, the operation of which, in the opinion of such pilot, may introduce an unnecessary risk to the port, other vessels, or the marine environment.

(1) An "unnecessary risk" includes situations where any vessel is deemed by the pilot not to be in compliance with applicable Federal Navigation Safety Regulations, or where the condition of any vessel's operation, in the opinion of the pilot, constitutes a "hazardous condition" as defined by federal regulations.

(2) An "unnecessary risk" may also include situations that may prevent or inhibit the safe movement of a vessel, including, but not limited to, instances wherein the wheelhouse or bridge is not properly manned by sufficient numbers of qualified crew members or, conversely, when the wheelhouse or bridge is encumbered by the presence of extraneous persons who are not members of the crew, docking pilots, pilots or apprentice pilots, owners, agents or operating managers.

(3) Nothing in this subpart shall prevent a pilot from piloting any vessel when, in his or her opinion, the vessel's safety or the safety of the port would be further impaired or endangered by the pilot's refusal to provide pilotage.

E. No pilot may depart any outbound vessel in pilot waters until that vessel has met or passed any other vessel also navigating on those pilot waters.

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F. The pilots may elect to waive the rates and fees for vessels refusing to receive a pilot on board as provided in 1976 Code Section 54-15-270; provided that such vessels have a maximum draft of less than eleven feet and are not engaged in commerce. Whenever such waivers are granted, neither the pilots nor the vessel will be deemed to be in violation of 1976 Code Sections 54-15-220 and 54-15-270, respectively.

G. The pilots may assign more than one pilot to any given vessel if, in their opinion, an additional pilot is necessary to assure adequate visibility or otherwise ensure the safe maneuvering of said vessel.

H. A master or licensed operator of any vessel may relieve the state pilot on board under certain circumstances where the safety of the vessel is perceived by the master, or licensed operator, to be at risk, however;

(1) No master or licensed operator of any vessel, having relieved the state pilot on board, shall then serve as the pilot on such vessel when the pilot has refused to pilot the vessel pursuant to the conditions described in subparts 136-070D(1) and 136-070D(2).

(2) Whenever a pilot on a vessel has been relieved by a master or licensed operator of said vessel or whenever a pilot refuses to pilot any vessel, such pilot shall immediately broadcast a Sécurité voice message on VHF Channels 13 and 16, stating the name of the vessel, its present position, direction of movement and speed, and the fact that a properly licensed pilot is neither directing nor controlling the vessel's movement.

(3) Whenever a pilot on a vessel has been relieved by the vessel's master or licensed operator or whenever a pilot refuses to pilot any vessel, he shall remain aboard until his disembarkation can be safely effected. Under such circumstances, such pilot is not in the service of his or her license. If such a pilot believes he or she can be of value to the vessel's master or operator subsequent to the aforementioned relief or refusal, the pilot shall offer his or her services and recommendations to the master or licensed operator, so as to mitigate risk or to provide the maximum safety under the conditions. Unless such a pilot broadcasts a second Sécurité call on VHF Channels 13 and 16 that he or she has reassumed control, such pilot will not be considered in the service of his or her license.

136-099. Penalties.

A. Suspension or revocation of pilot licenses shall be initiated and prosecuted pursuant to 1976 Code Section 54-15-320 and Section 1-23-370.

B. Fines, forfeitures, and other penalties shall be initiated and prosecuted pursuant to 1976 Code Section 54-15-340.

C. Nothing contained within the penalty provisions of 1976 Code Title 54, Chapter 15, shall be construed to preempt or constrain the investigation or imposition of any criminal or civil action authorized or required by either federal or state law, and the investigative procedures and penalties provided in Chapter 1 of Title 40, 1976 S.C. Code, as amended.

### **Fiscal Impact Statement:**

There will be no increased costs to the State or its political subdivisions.

### **Statement of Rationale:**

Regulations 136-013, 136-020, 136-070, and 136-099 are being amended in conformance with 2006 Act 237 and public comment.

Document No. 3221  
**STATE LAW ENFORCEMENT DIVISION**  
 CHAPTER 73  
 Statutory Authority: 1976 Code Section 16-8-330

73-500 through 73-560. Statewide Criminal Gang Database

**Synopsis:**

South Carolina Act No. 82, passed by the General Assembly in 2007, and codified in Section 16-8-330 of the South Carolina 1976 Code of Laws, requires SLED to develop and manage a Statewide Criminal Gang Database to facilitate the exchange of information between federal, state, county, and municipal law enforcement agencies, and to promulgate regulations regarding this database. The South Carolina Law Enforcement Division (SLED) proposes the regulation contained in this document, entitled “73-500 through 73-560. Statewide Criminal Gang Database”, as compliance with the above-noted statute. This proposed regulation was published in the State Register on April 25, 2008, and there were no requests received for a hearing by the Administrative Law Court. As noted in the “Instructions” section below, minor technical changes have been made to the originally proposed language.

**Instructions:**

The following sections of this proposed Regulation were modified as noted below:

Section 73-510 – Current NCIC policies require that this system run on SLED computer networks and connections rather than NCIC networks and connections.

Section 73-520 – Current NCIC policies require that this system run on SLED computer networks and connections rather than NCIC networks and connections.

Section 73-530 – Current NCIC policies require that this system run on SLED computer networks and connections rather than NCIC networks and connections.

Section 73-540 – During initial drafting of this regulation, subsection (E) of SC Code Section 16-8-330 was inadvertently omitted from this section of the regulation.

Section 73-550 – Technical changes were made to comply with current FBI Violent Gang and Terrorist Organization File (VGTOF) entry criteria.

Section 73-560 – Current NCIC policies require that this system run on SLED computer networks and connections rather than NCIC networks and connections.

All other items and sections remain unchanged.

**Text:**

73-500. Background and Scope

1. Pursuant to meeting the intent and purpose of the Criminal Gang Prevention Act of 2007 (A82, R109, S141), SLED must develop and manage a statewide criminal gang database to facilitate the exchange of information between federal, state, county, and municipal law enforcement agencies pursuant to the intent and purpose of this article.

2. As specified in SC Code Section 16-8-330, all state, county, and municipal law enforcement agencies must furnish information they acquire relating to criminal gangs and gang-related incidents to SLED to be included in the database.

73-510. SLED Responsibilities

1. Maintain the Statewide Criminal Gang Database (SCGD);

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2. Ensure that use of the SCGD is only by bona fide law enforcement agencies and officials;
3. Receive recommendations from Chiefs and Sheriffs regarding individuals selected for data entry to the SCGD;
4. Provide extensive training to qualified individuals regarding database entry requirements and other applicable requirements specified in regulation and statute;
5. Provide access codes to those individuals who complete SLED SCGD training;
6. Monitor entries to and inquiries of the database;
7. Review applications for access and execute Memoranda of Understanding (MOU) with participating agencies;
8. Determine, as specified in state statutes, if information relating to criminal gangs, gang-related incidents, patterns of gang activity, or members or associates of criminal gangs received from federal law enforcement agencies and law enforcement agencies of other states is eligible to be included in the SCGD;
9. Verify through SLED Criminal Justice Information Services (CJIS) Site Security Surveys that participating agencies have provided adequate physical security and have security Standard Operating Procedures which meet the criteria of this regulation;
10. Audit participating agencies to verify that quality assurance procedures are in place to meet SLED requirements, and that compliance is maintained;
11. Terminate access for non-compliance;
12. Ensure applicable Federal Regulations regarding misuse are followed and civil penalties imposed when applicable; and
13. Review and purge files per applicable Federal Regulations, including 28CFR Part 23.

### 73-520. Participating Law Enforcement Agency Responsibilities

1. Ensure that employees granted access to SCGD have been trained as specified by SLED regarding implementation of the requirements of this regulation;
2. Provide physical security for SCGD terminals in accordance with SLED requirements;
3. Maintain data received from the SCGD in accordance with SLED requirements and 28 CFR Part 23;
4. Ensure that data submitted to SCGD has been collected in accordance with Code Sections 16-8-210 et seq. (specifically, Sections 16-8-230, -320 and -330) and that data not collected in accordance with those statutes is not submitted to the SCGD;
5. Ensure that adequate quality assurance procedures are in place to comply with SLED requirements, 28 CFR Part 23, this regulation, and any other applicable regulations or statutes.

### 73-530. Criteria for Access to the Statewide Criminal Gang Database

1. SLED will execute SCGD MOUs with participating agencies.
2. Participating agencies will provide a computer, connectivity, and qualified operators to access the secure SLED SCGD.
3. Participating agencies will enter and maintain SCGD data in accordance with this regulation.

### 73-540. Criteria for Entry of Information to the Statewide Criminal Gang Database

1. Information submitted to the database must comply with SC Code Section 16-8-230 subsections (2) through (5).
2. Information submitted to the SCGD must be from sources deemed reliable in accordance with generally accepted law enforcement criteria.
3. Individuals entered into the SCGD based on association with other known criminal gang members must be consistent with the Federal Bureau of Investigation's Violent Gang and Terrorist Organization File (VGTOF) criteria as defined in SC Code Section 16-8-330 (D) and (E).

## 73-550. Criteria for Designation as an Active Member of a Criminal Gang

1. An individual admits, at the time of arrest or incarceration, to being a member of a criminal gang; or,
2. An individual meets any two of the following criteria:
3. An individual is identified as a criminal gang member by a documented reliable informant;
4. An individual resides in or frequents a particular criminal gang's or group's area, and adopts their style of dress, their use of hand signs, or their tattoos, and associates with known criminal gang or criminal group members;
5. An individual is identified as a criminal gang member as corroborated by independent information;
6. An individual has been arrested more than once in the company of identified criminal gang members for offenses which are consistent with usual criminal gang activity, or criminal group activity for which the criminal group is associated with; or
7. An individual admits, at a time other than arrest or incarceration, to being a member of a criminal gang.

## 73-560. Penalties for Misuse of the Statewide Criminal Gang Database

1. Misuse of the SCGD will subject the offender to SLED decertification.
2. Misuse of the SCGD may possibly subject the offender to a Federal Civil Fine of up to \$10,000 as specified in Federal Regulation 28CFR Part 23.

**Fiscal Impact Statement:**

No additional state funding is requested. A prior review of the Criminal Gang Prevention Act by SLED indicated a need for one (1.00) new position and support costs to train and maintain the Violent Gang and Terrorists Organization File and also manage the Statewide Criminal Gang Database. This represented a recurring cost to the General Fund of the State of approximately \$50,399. There was also a one-time cost of \$3,400 for furniture and office equipment for the new position. These funds were provided to SLED in the FY2007-08 Appropriation Bill.

Further review indicated the need for approximately \$395,500 to construct the Statewide Criminal Gang Database. Funding for this project was provided in 2007 by grant funds received from the United States Department of Homeland Security.

**Statement of Rationale:**

This regulation is promulgated in response to the requirements set forth by Act 82 passed by the S.C. General Assembly in 2007. It requires SLED to develop and manage a statewide criminal gang database to facilitate the exchange of information between municipal, county, state, and federal law enforcement agencies, and to promulgate regulations regarding this database.

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Document No. 4042  
**DEPARTMENT OF NATURAL RESOURCES**  
CHAPTER 123

Statutory Authority: 1976 Code Sections 50-1-200, 50-1-220, 50-11-10, 50-11-96, 50-11-105, 50-11-310, 50-11-335, 50-11-350, 50-11-390, 50-11-520, 50-11-530, 50-11-854, 50-11-2200 and 50-11-2210

- 123-40. Wildlife Management Area Regulations
- 123-51. Turkey Hunting Rules and Seasons
- 123-52. Either-sex Days for Private Lands in Game Zones 1-6
- 123-55. Regulations for the Use of Fertility Control or Other Chemical Substances in Wildlife

**Synopsis:**

These regulations amend Chapter 123-40, 123-51 and 123-52 in order to set seasons, bag limits and methods of hunting and taking of wildlife on existing and additional Wildlife Management Areas and Chapter 123-55 in order to clarify the use of fertility control or other chemical substances in wildlife.

The Notice of Drafting for this regulation was published on July 25, 2008 in the South Carolina State Register Volume 32, Issue No. 7.

**Instructions:**

Amend Regulations 123-40, 123-51 and 123-52 to establish changes and include additional WMA's and amend Regulation 123-55 to exclude certain nuisance species from the permit requirement.

**Text:**

**HUNTING IN WILDLIFE MANAGEMENT AREAS**

123-40. Wildlife Management Area Regulations.

1.1 The following regulations amend South Carolina Department of Natural Resources regulation Numbers 123-40 and 123-51.

1.2. The regulations governing hunting including prescribed schedules and seasons, methods of hunting and taking wildlife, and bag limits for Wildlife Management Areas and special restrictions for use of WMA lands are as follows:

**(B) Game Zone 2**

**John C. Calhoun, Cokesbury, Clarks Hill, Parsons Mountain, Key Bridge, Forks, Ninety-six, Goldmine, Murray, Enoree, Fairforest, Keowee, Fant's Grove, Carlisle, Broad River, Dutchman, Wateree and Worth Mountain WMA's.**

Primitive Weapons Hunts (No dogs)	Oct. 1 - Oct. 10	2 Deer, buck Only for muzzleloaders except either-sex on days specified in Reg. 4.2. Archery, either-sex.
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**(G) Francis Marion National Forest**

During still gun hunts for deer there shall be no hunting or shooting from, on or across any road open to vehicle traffic. No buckshot on still gun hunts. During deer hunts when dogs are used buckshot only is permitted. On either-sex deer hunts with dogs, all deer must be checked in by one hour after legal sunset. On all still gun and muzzleloader either-sex hunts for all units, all does must be tagged with an individual antlerless deer tag except when harvested on county-wide either-sex days. Individual antlerless deer tags are valid on days not designated as either-sex after Sept. 15 for still hunting only.

Total of 8 deer for all gun and muzzleloader hunts on the Francis Marion.

**(H) Moultrie**

Deer

Total of 8 deer per season.

Unless in an elevated stand, there shall be no hunting or shooting from, on, or across any road during gun hunts for deer.

**(I) Santee Cooper WMA**

Data cards required for hunter access. Completed data cards must be returned daily upon leaving Santee Cooper WMA.

Deer

Total 8 deer per season for all hunts combined, no more than 2 bucks.

Quality Deer Management Area – Only antlerless deer, spike bucks (2 points) and bucks with a minimum 4 points on one side or a 12-inch minimum antler spread. A point must be at least one inch long measured from the nearest edge of main beam to the top of the point. Campground is open during scheduled deer hunts only.

Archery

First full week in Oct.  
(Mon. – Sat.)

2 deer per day, either-sex,  
no more than 1 buck per day.

Archery and Muzzle Loader

Second full week in Oct. (Mon.-  
Sat.), First full week in Nov. (Mon.  
- Sat.), Second full week in Dec.  
(Mon. – Sat.)

2 deer per day, either-sex,  
no more than 1 buck per day.

Small Game

1<sup>st</sup> Mon. after the closing  
of the last deer hunt through Mar. 1,  
except raccoon hunting each Fri. and  
Sat.

Game Zone 6 Bag limits,  
except Quail- 8 per day.

**(J) Webb WMA**

Quail Hunts

Quail hunters must  
pick-up and return  
data cards at kiosk

2<sup>nd</sup> and 4<sup>th</sup> Wed. in Jan.  
2<sup>nd</sup> and 4<sup>th</sup> Sat. in Jan.  
1<sup>st</sup> and 3<sup>rd</sup> Sat. in Feb.  
1<sup>st</sup> and 3<sup>rd</sup> Wed. in Feb.

8 quail per day.

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Still Hog Hunts (no dogs)	3 <sup>rd</sup> Thurs. – Sat. in Mar.	No limit.
Archery, crossbows,	2 <sup>nd</sup> Thurs. – Sat. in May	
centerfire rifles, muzzleloading	1 <sup>st</sup> Thurs. – Sat. in Sept.	
rifles, centerfire handguns and		
shotguns with slugs only.		

### (L) Santee Delta WMA

Deer and hog hunters must sign in and out and complete a data card on harvested animals at the check Station on the East Side of the Delta.

Special hog hunt	3 <sup>rd</sup> Wed., Thurs., Fri. in Mar.	Hogs only, no limit, no live hogs
Shotgun with slug or	(impoundments only)	to be removed from WMA.
muzzleloader, no buckshot,		
hunting from elevated stands		
only.		

Special hog hunt with dogs	3 <sup>rd</sup> and 4 <sup>th</sup> Sat. in Mar.	Hogs only, no limit, handguns
	(impoundments only)	only, limit 4 bay or catch dogs
		per party. No live hogs removed
		from WMA.

### (P) Pee Dee Station Site WMA

Deer	Total of 3 for all hunt periods
	combined.

Still hunting only, no deer dogs, no buckshot, no hunting or shooting from or on any roads open to vehicular traffic. The scouting seasons are 3-day periods on Saturday through Monday immediately proceeding hunt periods. Data cards required for access. Completed data cards must be returned daily upon leaving Pee Dee Station Site WMA.

### (R) Santee Coastal Reserve WMA

Deer hunters must sign in and sign out and complete a data card on harvested animals.

### (S) Other Small WMAs

#### Aiken, Lexington and Richland Counties

Deer		
Still Gun Hunts	No hunting before	Game Zone 3 bag limits.
and Archery	Sept. 1 or after Jan. 1	Buck only, except on Game
(No dogs)		Zone 3 either-sex days as
		specified in Reg. 4.2. Individual
		antlerless deer tags are valid on
		other “unnamed” WMAs starting
		Sept. 15. Tags do not alter daily or
		season bag limits.



**Chesterfield, Kershaw, Dillon & Marlboro Counties**

Still Gun Hunts  
and Archery  
(No Dogs)

Sept 15 - Jan 1

Total 10 deer for all gun hunts, 2 per day, buck only except on Game Zone 4 either-sex days as specified in Reg. 4.2. Individual antlerless deer tags are valid on other “unnamed” WMAs starting Sept. 15. Tags do not alter daily or season bag limits. Limit of 10 may not include more than 5 bucks. Male deer required 2 inches of visible antler above the hairline to be legal. Male fawns (button bucks) are considered antlerless deer, legal only during either-sex hunts; however, they apply toward the buck limit.

**Darlington, Lee & Sumter Counties**

Archery

Sept. 1 - Jan. 1

Total 5 deer per season, buck only, except on Game Zone 5 either-sex days as specified in Reg. 4.2. Individual antlerless deer tags are valid on other “unnamed” WMAs starting Sept. 15. Tags do not alter daily or season bag limits.

Still Gun Hunts  
(No dogs)  
No buckshot.

Sept. 15 - Jan. 1

Total 5 deer per season, buck only except on Game Zone 5 either-sex days as specified in Reg. 4.2. Individual antlerless deer tags are valid on other “unnamed” WMAs starting Sept. 15. Tags do not alter daily or season bag limits.

**(T) Woodbury WMA**

Special Hog  
Still Hunt (No dogs)  
Archery, crossbows, centerfire  
rifles, muzzleloading rifles,  
centerfire handguns and shotguns  
with slugs only.

Mar. 1 – 3<sup>rd</sup> Sat. in Mar.

Hogs no limit.

Raccoons

Wed. - Sat. nights beginning  
Sat. after Thanksgiving – last Wed.  
or Sat. in Feb.

3 per party per night.

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### (W) Marsh WMA

Special Hunt Area for Youth and Mobility Impaired Hunters	No open season except for hunters selected by drawing.	1 deer per day, either-sex.
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Special Hog Still Hunt (no dogs) Archery, crossbows, centerfire rifles, muzzleloading rifles, centerfire handguns and shotguns with slugs only.	3 <sup>rd</sup> Mon. in Nov. – following Sat. Mar. 1 <sup>st</sup> – 3 <sup>rd</sup> Sat. in Mar.	Hogs Only, no limit, no bay or catch dogs.
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### (X) Hamilton Ridge WMA

Deer Muzzleloader and archery (No dogs)	1 <sup>st</sup> full week in Nov.	2 deer per hunt period, either-sex, only 1 buck. Hogs no limit.
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Special Hog Still Hunt (no dogs) Archery, crossbows, Centerfire rifles, muzzleloading rifles, centerfire handguns and shotguns with slugs only.	3 <sup>rd</sup> Thurs. – Sat. in Mar. 2 <sup>nd</sup> Thurs. – Sat. in May 1 <sup>st</sup> Thurs. – Sat. in Sept.	No limit.
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Quail Hunts Quail hunters must pick-up and return data cards at kiosk	2 <sup>nd</sup> and 4 <sup>th</sup> Wed. in Jan. 2 <sup>nd</sup> and 4 <sup>th</sup> Sat. in Jan. 1 <sup>st</sup> and 3 <sup>rd</sup> Sat. in Feb. 1 <sup>st</sup> and 3 <sup>rd</sup> Wed. in Feb.	8 quail per day.
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### (AA) Little Pee Dee River Complex WMA

Raccoon	Wed. – Sat. nights beginning Sat. after Thanksgiving – the last Wed. or Sat. in Feb.	3 per party per night.
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Special Hog Still Hunt (no dogs) Archery, crossbows, centerfire rifles, muzzleloading rifles, centerfire handguns and shotguns with slugs only.	Mar. 6 - 3 <sup>rd</sup> Sat. in Mar.	Hogs only, no limit, no bay or catch dogs.
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### (BB) Great Pee Dee River WMA

For big game hunting, access is restricted from two hours before sunrise to two hours after official sunset. Data cards required for hunter access. Completed data cards must be returned daily upon leaving Great Pee Dee River WMA.

**Deer Hunts**

Total 3 deer for all hunts.

Still hunting only, no deer dogs, no buckshot, no hunting from motor vehicles or boats, no hog dogs. Hogs may be taken only during deer hunts or special hog hunts. Firearms must be unloaded and cased and not readily accessible when not in legal use.

Special Hog Still Hunt (no dogs)	1st Mon. in Dec. – the following Sat.	Hogs only, no limit.
Archery, crossbows, centerfire rifles, muzzleloading rifles, centerfire handguns and shotguns with slugs only.	2 <sup>nd</sup> Mon. in Dec. – the following Sat. 3 <sup>rd</sup> Mon. in Dec. – the following Sat. 1st Mon. in Feb. – the following Sat. 2 <sup>nd</sup> Mon. in Feb. – the following Sat.	

**(CC) Hickory Top WMA**

Data cards required for hunter access. Completed data cards must be returned daily upon leaving Hickory Top WMA.

**(DD) Palachucola WMA**

**Deer Hunts**

Deer hunting or shooting will not be allowed from or on roads open to vehicle traffic. All deer hunters are required to sign-in and sign-out daily.

Archery (No Dogs)	Sixteen hunting days beginning the last Wed. in Sept.	3 deer, either-sex, except only 1 buck with a minimum 4 points on one side or a minimum 12-inch antler spread.
Muzzleloader and Archery (No dogs)	3 <sup>rd</sup> Thurs. – Sat. in Dec.	3 deer, either-sex except only 1 buck with a minimum 4 points on one side or a minimum 12-inch antler spread.
Quail Hunts Quail hunters must pick-up and return data cards at kiosk	2 <sup>nd</sup> and 4 <sup>th</sup> Wed. in Jan. 2 <sup>nd</sup> and 4 <sup>th</sup> Sat. in Jan. 1 <sup>st</sup> and 3 <sup>rd</sup> Sat. in Feb. 1 <sup>st</sup> and 3 <sup>rd</sup> Wed. in Feb.	8 quail per day.
Still Hog Hunts (no dogs) Archery, crossbows, centerfire rifles, muzzleloading rifles, centerfire handguns and shotguns with slugs only.	3 <sup>rd</sup> Thurs. – Sat. in Mar. 2 <sup>nd</sup> Thurs. – Sat. in May 1 <sup>st</sup> Thurs. – Sat. in Sept.	No limit.

**(EE) St. Helena Sound Heritage Preserve WMA**

Otter Island Raccoon	Sat. during Jan. & Feb.	Game Zone 6 limits.
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### (FF) Waccamaw River Heritage Preserve WMA

Deer		Total 2 deer per season. Hogs no limit.
Hog hunt with dogs	1 <sup>st</sup> & 2 <sup>nd</sup> Sat. in Mar.	No limit, sidearms only, no more than 4 bay or catch dogs per party, no live hogs removed from WMA.

### (HH) Canal WMA

Hunters must pick up and return data cards at access points. Shotguns must be plugged so as not to hold more than 3 shells.

Quail	1 <sup>st</sup> Wed. after opening day of quail season and every other Wed. and Sat. thereafter until Mar. 1	Total 8 per day.
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### (OO) Santee Dam WMA

Small Game, no open season on fox squirrels.	Jan. 2 through Mar. 1	Game Zone 5 bag limits.
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### (UU) Wee Tee WMA

Raccoon	Sept. 15 – Mar. 1 (nights only)	3 per party per night.
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### (VV) Bonneau Ferry WMA

No camping is allowed. No person hunting on Bonneau Ferry WMA may possess, consume, or be under the influence of intoxicants including beer, wine, liquor or illegal drugs. All terrain vehicles are prohibited. Hunting access by boat is prohibited. Adult/youth fishing only. For fishing, youth must be accompanied by no more than two adults 18 years old or older. For hunting, Adult/youth Side A is open only to youth 17 years old or younger who must be accompanied by only one adult 21 years of age or older. Youth hunters must carry a firearm and hunt. Adults with youth hunters may also carry a firearm and hunt. For deer and small game hunting Sides A and B will alternate each year. All hunters must sign in and sign out upon entering or leaving Bonneau Ferry WMA. All deer must be checked out at the main entrance. Bonneau Ferry WMA is closed to public access one hour after sunset until one hour before sunrise except, for special hunts regulated by DNR. Hunters may not enter WMA prior to 5:00 AM on designated hunts. All impoundments and adjacent posted buffers are closed to all public access Nov. 1 – Mar. 1 except for special draw deer hunts and waterfowl hunts regulated by DNR during the regular waterfowl season. No fox or bobcat hunting. Hogs may be harvested during any scheduled hunt.

#### Side A (Adult/Youth Only)

Draw deer hunts are for two and one half days (afternoon on the first day and 2 full days). Hunt periods begin in September and continue until early December. Hunters are required to have permit in possession and must sign in and sign out (Name, permit # and deer killed each day). Area is closed to the general public access during scheduled deer, turkey and waterfowl hunts.

<p>Quail (Side B) Shotguns must be plugged to hold no more than 3 shells. Hunters must pick up, accurately fill out and return data card at the main entrance.</p>	<p>Open every other Sat. beginning Feb. 1 through Mar. 1.</p>	<p>Limit 8 per day.</p>
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**(YY) Botany Bay Plantation WMA**

All hunters, fishermen, and visitors must sign in and sign out upon entering or leaving Botany Bay Plantation WMA. Botany Bay Plantation WMA is closed to public access one hour after sunset until one hour before sunrise, except for special events regulated by DNR. Area is closed to general public access during scheduled deer and turkey hunts. Hunting in designated areas only. Hunting access by boat is prohibited. Fishing in the Jason’s Lake complex and all other ponds is adult/youth catch and release only on designated days. For adult/youth fishing, youth must be accompanied by no more than two adults 18 years old or older. Adult may also fish.

Deer

<p>Archery</p>	<p>1<sup>st</sup> Mon. after Sept. 15 until the 1<sup>st</sup> Sat. in Oct.; 3<sup>rd</sup> Mon. in Dec. until the following Sat.</p>	<p>Total 3 deer, either-sex but only 1 buck with a minimum 4 points on one side or a 12” minimum antler spread.</p>
<p>Still Gun Hunts (No dogs)</p>	<p>No open season except for hunters selected by computer drawing.</p>	<p>Total 3 deer, either-sex but only 1 buck with a minimum 4 points on one side or a 12” minimum antler spread.</p>

Draw deer hunts are for two and one half days (afternoon on the first day and 2 full days). Hunt periods begin in September and continue into December. Hunters are required to have permit in possession and must sign in and sign out (Name, permit # and deer killed each day) at the designated check station. All harvested deer must be checked in at the designated check station.

<p>Small Game No open season for fox squirrels or foxes. Dogs allowed during gun seasons only.</p>	<p>Jan. 2 – Mar. 1 Wed. and Sat. Only</p>	<p>Game Zone 6 bag limits, except quail 8/day.</p>
<p>Raccoons and Opossum</p>	<p>Jan. 2 – Mar. 1</p>	<p>Game Zone 6 bag limits.</p>

**(ZZ) Old Island Heritage Preserve WMA**

Deer

<p>Archery</p>	<p>Sept. 15 – Jan. 1</p>	<p>Total 2 deer per season. 1 deer per day, either-sex.</p>
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2.6 On all WMA lands, baiting or hunting over a baited area is prohibited. As used in this section, "bait" or "baiting" means the placing, depositing, exposing, distributing, or scattering of shelled, shucked, or unshucked corn, wheat, or other grain or other food stuffs to constitute an attraction, lure, or enticement to, on, or over any area. "Baited area" means an area where bait is directly or indirectly placed, deposited, exposed,

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distributed, or scattered and the area remains a baited area for ten (10) days following the complete removal of all bait. Salt/minerals are not considered bait.

2.7 On WMA lands construction or use of tree stands is prohibited if the tree stand is constructed by driving nails or other devices into trees or if wire is wrapped around trees. Other tree stands and temporary screw-in type climbing devices are permitted provided they are not permanently affixed or embedded in the tree. All stands must be removed by the end of the deer hunting season.

2.11 While participating in a hunt on WMA's, no person may possess, consume or be under the influence of intoxicants, including beer, wine, liquor or drugs.

3.1 On WMA lands hunters may use any shotgun, rifle, bow and arrow, crossbow or hand gun except that specific weapons may be prohibited on certain hunts. Small game hunters may possess or use shotguns with shot no larger than No. 2 or .22 rimfire or smaller rifles/handguns or primitive muzzle-loading rifles of .40 caliber or smaller. Small game hunters may not possess or use buckshot, slugs or shot larger than No. 2. Blow guns, dart guns or drugged arrows are not permitted. Small game hunters using archery equipment must use small game tips on the arrows (judo points, bludgeon points, etc.).

3.2 For Special Primitive Weapons Seasons, primitive weapons include bow and arrow, crossbow and muzzle-loading shotguns (20 gauge or larger) and rifles (.36 caliber or larger) with open or peep sights or scopes, which use black powder or a black powder substitute that does not contain nitro-cellulose or nitro-glycerin components as the propellant charge. There are no restrictions on ignition systems (e.g. flintstone, percussion cap, shotgun primer, disk, electronic, etc.). During primitive weapons season, no revolving rifles are permitted.

4.2 Deer either-sex days for gun hunts are as follows:

Game Zone 1: The first three Saturdays in November.

Game Zones 2 - 6: Every Saturday from October 1 to the Saturday after Thanksgiving day inclusive; Saturdays in December beginning 23 days after Thanksgiving day; and the last day of the open season.

In Game Zones 1 and 2 hunters using archery equipment may take either-sex during any open season for deer.

On special mobility impaired and youth and deer hunts sanctioned by the department and during the statewide youth deer hunt day, participants may take antlerless deer, 2 per day.

5.2 On all WMA lands in Game Zones 1 and 2, beagles may not be used for rabbit hunting during still gun hunts for deer or bear. Beagles may be used from the close of the season for deer until the close of the rabbit season. Beagles may be trained for rabbit hunting from September 1 through September 30 (no guns).

5.4 The Department may permit deer hunting with dogs on WMA areas not located in Game Zones 1 and 2. For the purposes of tracking a wounded deer, a hunter may use one dog which is kept on a leash.

7.1 On all WMA lands during any gun and muzzleloader hunting seasons for deer, bear and hogs, all hunters including small game hunters must wear either a hat, coat, or vest of solid visible international orange, except hunters for dove, turkey and duck are exempt from this requirement while hunting for those species.

10.8 During the period 01 Nov.-01 Mar. except for special hunts designated by the Department, Sandy Beach Waterfowl Area is closed to public access and impoundments on Bonneau Ferry WMA are closed to public access.

10.9 Broad River Waterfowl Management Area is closed to public access during the period 01 Nov.-01 Feb. except for special hunts designated by the Department.

10.10 Impoundments on Bear Island, Donnelly, Samworth, Santee Coastal Reserve and Santee Delta WMAs are closed to all public access during the period 15 Oct. - 8 Feb. except during special hunts designated by the Department. All public access during the period 01 Feb. - Oct. 14 is limited to designated areas. On Bear Island WMA, Mathews' Canal is closed to all hunting from Nov. 1 – Feb. 15 beyond a point 0.8 mile from the confluence of Mathews' Canal with the South Edisto River.

10.14 The Francis Marion National Forest and Crackerneck WMA are open during special small game seasons within the regular migratory bird seasons; Fant's Grove WMA is open AM only on Wednesdays and Saturdays during the regular migratory bird seasons; Palachucola WMA, Tillman Sand Ridge WMA, Hamilton Ridge WMA and Webb WMA are open AM only for waterfowl hunting during special small game seasons within the regular migratory bird seasons.

10.16 Category II Designated Waterfowl Areas include Biedler Impoundment, Carr Creek (bounded by Samworth WMA), Little Carr Creek (bounded by Samworth WMA), Lake Cunningham, Russell Creek, Monticello Reservoir, Parr Reservoir, Duncan Creek, Dunaway, Dungannon, Enoree River, Moultrie, Hatchery, Hickory Top, Hickory Top Greentree Reservoir, Lancaster Reservoir, Turtle Island, Little Pee Dee River Complex (including Ervin Dargan, Horace Tilghman), Great Pee Dee River, Potato Creek Hatchery, Sampson Island Unit (Bear Island), Tyger River, Marsh, Wee Tee, Woodbury, Ditch Pond, Waccamaw River Heritage Preserve and 40 Acre Rock Waterfowl Management Areas. Hunting on Category II Designated Waterfowl Areas is in accordance with scheduled dates and times.

DESIGNATED WATERFOWL AREAS

Area	Open dates inclusive	Bag Limits
Waccamaw River HP	Wed. and Sat. AM only during the regular season.	Federal Limits
40 Acre Rock	Sat. AM only during regular season.	Federal Limits

10.21 On Enoree River, Dunaway, Duncan Creek, Russell Creek and Tyger River Waterfowl Areas data cards are required for hunter access during scheduled waterfowl hunts. Completed data cards must be returned daily upon leaving each of these areas.

10.22 Woodbury Waterfowl Management Area includes all SCDNR-owned property south of US Hwy 378 and bounded on the west by the Great Pee Dee River and Bluff Road and to the east by the Little Pee Dee River except no waterfowl hunting allowed in the area known as Hass Pond that is bounded on all sides by Hass Pond Road.

123-51. Turkey Hunting Rules and Seasons

AREA	DATES	LIMIT	Other Restrictions
Francis Marion Hunt Unit	April 1 - May 1	2	WMA Only
Tibwin Special Use Area	April 1 - May 1	2	Special hunts for youth or mobility impaired hunters as published by SCDNR
Moultrie Hunt Unit	April 1 - May 1	2	Wed. & Sat. Only
Hall WMA	April 1 - May 1	2	
Santee Dam WMA	April 1 - May 1	2	
Hickory Top WMA	April 1 - May 1	2	
Pee Dee Station Site WMA	April 1 - May 1	1	Wed. & Sat. Only All hunters must pick up and return data cards at kiosk.

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Great Pee Dee River WMA	April 1 - May 1	1	Wed. & Sat. Only All hunters must pick up and return data cards at kiosk.
Oak Lea WMA	April 1 – May 1	2	Wed. Only
Longleaf Pine HP WMA	April 1 - May 1	2	Wed. & Sat. Only
Botany Bay Plantation WMA	April 1 – May 1	1 per hunter	Youth hunting by draw only.

2. The following Regulations apply statewide. No turkey hunting permitted on Turkey Restoration Sites which have not been formally opened by the Department.

a. During the spring turkey hunting season no game animal may be taken except turkey gobblers (bearded birds). During the fall turkey season both gobblers and hens may be taken.

b. Shotguns, muzzleloader shotguns, crossbows or bows and arrows are permitted, all other weapons and methods of taking are prohibited including rifles, pistols, hard jacketed bullets, buckshot and slugs.

c. Turkeys may not be hunted with dogs.

d. Live decoys are prohibited.

123-52 Either-sex days for Private Lands in Game Zones 1-6.

Game Zone 1: The first three Saturdays in November.

Game Zone 2-6: Every Saturday from October 1 to the Saturday after Thanksgiving Day inclusive; Saturdays in December beginning 23 days after Thanksgiving Day; and the last day of the open season.

The daily bag limit on either-sex days is 2 antlerless deer.

In Game Zones 1 and 2 hunters using archery equipment may take either-sex during any open season for deer.

On special mobility impaired and youth and deer hunts sanctioned by the department and during the statewide youth deer hunt day, participants may take antlerless deer, 2 per day.

123-55. Regulations for the use of fertility control or other chemical substances in wildlife (50-11-96).

A permit is not required by a licensed pesticide applicator using registered pesticides for the control of English sparrows, feral pigeons, and European starlings.

### **Fiscal Impact Statement:**

This amendment of Regulations 123-40, 123-51 and 123-52 will result in increased public hunting opportunities which should generate additional State revenue through license sales. In addition, the local economy should benefit from sales of hunting supplies, food and overnight accommodations. Sales taxes on these items will also directly benefit government.

The addition of Regulation 123-55 will provide for the continued use, by licensed pesticide applicators, of pesticides registered for use in the control of birds not protected by South Carolina law. Other than allowing these applicators to continue to operate as they have in the past, no fiscal impact is expected.

### **Statement of Rationale:**

Rationale for the formulation of these regulations is based on over 60 years of experience by SCDNR in establishing public hunting areas. New areas are evaluated on location, size, current wildlife presence, access and recreation use potential. Contractual agreements with the landowners provide guidelines for the use and management of the property. Wildlife Management Area agreements are on file with the Wildlife Management Section of the Department of Natural Resources, Room 267, Dennis Building, 1000 Assembly Street, Columbia.



Document No. 3208  
**DEPARTMENT OF PUBLIC SAFETY**  
CHAPTER 38  
Statutory Authority: 1976 Code Section 56-5-6560

38-1000. Contact Information from Traffic Stops

**Synopsis:**

The South Carolina Department of Public Safety is proposing to publish regulations under Article 11 of Chapter 38 of the Department's regulations. These regulations relate to contact information required to be collected by law enforcement officers when a driver is stopped for a traffic violation, but the driver is not issued a traffic citation or placed under arrest. Section 56-5-6560 requires all law enforcement agencies to collect specific information from the driver in these situations and report that information to the South Carolina Department of Public Safety. Section 56-5-6560 further requires the Department of Public Safety to enact regulations on this matter. A Notice of Drafting for the Proposed Regulations was published in the State Register on August 24, 2007. A discussion of the proposed regulations and statement of need and reasonableness is contained herein.

**Instructions:**

Publish new regulations under Article 11 of Chapter 38.

**Text:**

38-1000

A. Definitions.

For purposes of this regulation:

1. "Department" means the South Carolina Department of Public Safety.
2. "Agency" means a law enforcement agency required to report contact information pursuant to the provisions of Section 56-5-6560.

B. Procedures for Collecting Information.

1. To implement the provisions of Section 56-5-6560, the Department of Public Safety has developed a contact form to be utilized by Law Enforcement Agencies.
2. The contact form will be issued in book format with a sequential numbering system.
3. All law enforcement agencies which make traffic stops will be issued contact form books. Contact Form Books will be issued in the same manner in which Uniform Traffic Citation books are issued.
4. A contact form must be completed by a law enforcement officer each time a motor vehicle is stopped without a citation being issued or an arrest being made.
5. When a contact form is completed, all fields marked in red must be completed by the law enforcement officer. These fields include: race or ethnicity; gender; date of birth; and the date the contact was issued.

C. Procedures for Reporting Information.

1. Each law enforcement agency must summarize their contact information for a particular month into pre-determined categories.
2. Each law enforcement agency which has law enforcement officers that make traffic stops will be issued a user account and a password to access the Department of Public Safety's contact information database.

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3. Each agency must report their summarized contact information via the Department's web portal on a monthly basis.

4. The summarized information collected for a particular month must be reported by the end of the next calendar month. The data for a particular month should include only those stops that occurred in that month.

5. An agency can amend any given month's report up to the time it is submitted. Once a report has been submitted, it can no longer be amended.

6. Fields on the contact database where there is no information to report should be left blank. The report generated by the Department will automatically generate a "0" in those fields. If an agency does not have any contacts to report for a particular month, the agency should still create and submit a "blank report" for that month. The blank report will have "0" in all the cells.

### D. Report.

1. The Department will publish a reporting tool that will allow the agencies and the general public to query the summary information that has been submitted by the agencies.

2. The reporting tool will allow the summary information that has been submitted to be queried either by a specific agency or for all agencies. In either case, the data can be further refined to reflect a specific month or a range of months.

3. The reports generated from the reporting tool reflect the summary information that has been submitted at that specific point in time. Until all agencies submit their reports for a given period, the values on any given report may change.

4. The reporting tool will be accessible from the Department's website.

### **Fiscal Impact:**

The Department anticipates the adoption of these regulations will have a minimum impact on the Department. The Department further anticipates the fiscal impact on reporting agencies will need to include the following areas: 1) officer training for the collection of the data, 2) categorization and summarization of the data, and 3) actual data entry. The lifecycle cost of this initiative on the reporting agencies will be directly related to their relative state of automation. The more manual their operation, the more long-term cost the agency will likely incur. Another contributing factor to the overall cost is the volume of activity that an agency has that falls within the parameters of this initiative. It is the Department's belief that the most significant effort for any reporting agency will be in the area of data categorization and summarization.

### **Statement of Rationale:**

The purpose of Reg. 38-1000 is to outline the procedures local and other State law Enforcement agencies must follow in reporting contact information from traffic stops to the Department of Public Safety pursuant to Section 56-5-6560. There was no scientific or technical basis relied upon in the development of this regulation.

Document No. 3197  
**PUBLIC SERVICE COMMISSION**  
CHAPTER 103  
Statutory Authority: 1976 Code Section 58-3-140

103-690.1. Annual Reporting Requirements for Designated Eligible Telecommunications Carriers

**Synopsis:**

Federal regulations require that the Commission file an annual certification with the Universal Service Administrative Company and the Federal Communications Commission stating that all federal high-cost support funds provided to Eligible Telecommunications Carriers (ETCs) within South Carolina are used only for the provision, maintenance, and upgrading of facilities and services for which the support is intended. The Commission has promulgated a regulation that outlines the filing and annual reporting requirements for designated ETCs.

**Instructions:**

Print the regulation in accordance with directions given below to reflect new regulation.

103-690.1. print new regulation as shown below

**Text:**

103-690.1. Annual Reporting Requirements for Designated Eligible Telecommunications Carriers

A. Purpose.

The purpose of this regulation is to specify the annual reporting requirements for designated Eligible Telecommunications Carriers (ETCs).

B. Annual Reporting Requirements for ETCs Designated after January 1, 2007.

This section shall apply to all eligible telecommunications carriers who are designated after January 1, 2007.

(a) Filing Deadlines. For ETCs who are designated after January 1, 2007, in order for the common carrier designated under 47 U.S.C. § 214(e)(2) to continue to receive support for the following calendar year, or retain its eligible telecommunications carrier designation, it must file with the commission and provide a copy to the ORS the annual reporting information in paragraph (b) no later than June 30, 2008, and thereafter annually by June 30<sup>th</sup> of each year. The information provided should cover the previous twelve (12) month period ending December 31<sup>st</sup>. The ORS shall review each ETC annual report and notify the commission on or before August 20<sup>th</sup> annually in writing as to the ORS's opinion as to whether the carrier is in compliance with federal and state regulations and rules. The commission, after holding a hearing, if it deems a hearing is necessary, shall determine based upon the information provided to it whether the carrier is in compliance with federal and state regulations and rules and shall notify the Federal Communications Commission and the Universal Service Administrative Company of each company's compliance by October 1<sup>st</sup> of the reporting year thereby ensuring that each ETC designated by the commission is authorized to receive federal support for the upcoming fiscal year.

Reports must also contain a commitment by wireless applicants to comply with the Cellular Telecommunications and Internet Association's Consumer Code for Wireless Service as of May 18, 2008, or a commitment by other ETCs that they meet the service quality standards outlined in Section 103-663. For the purpose of this regulation, access lines and handsets shall be used interchangeably.

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(b) A common carrier designated under 47 U.S.C. § 214(e)(2) as an eligible telecommunications carrier after January 1, 2007 shall provide:

(1) a progress report on its two-year service quality improvement plan, including maps detailing its progress toward meeting its plan targets, an explanation of how much universal service support was received and how it was used to improve signal quality, coverage, or capacity, and an explanation regarding any network improvement targets that have not been fulfilled. The information shall be submitted at the wire center level. Additionally, an updated forward-looking two-year plan shall be filed annually;

(2) detailed information on any outage, as defined in 47C.F.R. §4.5, of at least 30 minutes in duration for each service area in which an eligible telecommunications carrier is designated for any facilities it owns, operates, leases, or otherwise utilizes that potentially affect (a) at least ten percent of the end users served in a designated service area; or (b) a 911 special facility, as defined in 47 C.F.R. §4.5(e). Specifically, the eligible telecommunications carrier's annual report must include information detailing: (a) the date and time of onset of the outage; (b) a brief description of the outage and its resolution; (c) the particular services affected; (d) the geographic areas affected by the outage; (e) steps taken to prevent a similar situation in the future; and (f) the number of customers affected;

(3) the number of requests for service from potential customers within the eligible telecommunications carrier's service areas that were unfulfilled during the past year. The carrier shall also detail how it attempted to provide service to those potential customers;

(4) the number of complaints or trouble reports per 1000 handsets or access lines;

(5) certification that it is complying with applicable service quality standards and consumer protection rules, as designated by the commission;

(6) a detailed report and certification that the carrier is able to function in emergency situations;

(7) for non-incumbent local exchange carriers certification that the carrier is offering a local usage plan comparable to that offered by the incumbent LEC in the relevant service areas;

(8) certification that the carrier acknowledges that the Federal Communications Commission may require it to provide equal access to long distance carriers in the event that no other eligible telecommunications carrier is providing equal access within the service area;

(9) the number of Lifeline customers and the number of customers that received Link Up assistance as of December 31st of the prior year;

(10) copies of responses to the Lifeline Verification Survey or Certification filed with the Universal Service Administrative Company on August 31<sup>st</sup> of each year; and

(11) For ETCs not eligible for High Cost Fund support, but participating in the Lifeline and Link Up programs, subsections (1) and (2) shall be waived. All other requirements shall remain in force, except that the requirements of (6) may be met by reference to an underlying carrier's continuing certification as for leased facilities.

### C. Annual Reporting Requirements for ETCs Designated Prior to January 1, 2007.

To the extent required by 47 C.F.R. 54.313 and 47 C.F.R. 54.314, ETCs who were designated prior to January 1, 2007, must certify to the commission that all federal high-cost support provided to such carriers within South Carolina in the succeeding calendar year will be used only for the provision, maintenance, and

upgrading of facilities and services for which the support is intended. This certification must be filed with the commission on or before August 1<sup>st</sup> annually.

D. Newly Designated Eligible Telecommunications Carriers.

(a) Once a carrier is designated as eligible to receive support, the commission shall file the certification with the Federal Communications Commission and the Universal Service Administrative Company within 60 days of that effective date of its designation as an eligible telecommunications carrier.

(b) Thereafter, the ETC must submit the data required in paragraph B by August 1<sup>st</sup> of each year to the commission and the commission shall file the certification with the Federal Communications Commission and the Universal Service Administrative Company by October 1<sup>st</sup>.

E. ETC Requirements for Lifeline and Link Up Services.

(a) ETCs shall offer Lifeline service in the designated service area to all qualifying low-income consumers in accordance with the federal lifeline service guidelines as follows:

(1) ETCs shall publicize the availability of Lifeline service in a manner reasonably designed to reach those likely to qualify for the service.

(2) ETCs shall commit to offer toll limitation to all qualifying low-income consumers at the time such consumers subscribe to Lifeline service. If the consumer elects to receive toll limitation service, that service becomes part of that consumer's Lifeline service.

(3) ETCs may not collect a service deposit in order to initiate Lifeline service if the qualifying low-income consumer voluntarily elects toll limitation service from the carrier where available.

(4) ETCs shall verify annually that its Lifeline customers meet the program qualification.

(5) ETCs shall notify Lifeline subscribers a minimum of 60 days prior to termination of their service if the carrier has a reasonable basis to believe that the subscriber no longer meets the Lifeline qualifying criteria.

(6) ETCs shall not charge Lifeline customers a monthly number- portability charge.

(b) ETCs shall offer Linkup service in the designated service area to all qualifying low-income consumers, in accordance with the following guideline:

(1) ETCs shall publicize availability of Link Up service in a manner reasonably designed to reach those likely to qualify for the service, and shall provide a reduction of the customary charge for connecting telecommunications service for a single line at the consumer's principal place of residence. The reduction shall be in conformance with federal regulations governing the cost of Link Up service.

**Fiscal Impact Statement:**

There will be no increased costs to the State or its political subdivisions.

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### Statement of Rationale:

The purpose of 26 S.C. Code Ann. Regs. 103-690.1 is to outline annual certification filing requirements for ETCs. The promulgated regulation will provide the Commission with important information to determine whether ETCs should continue to receive federal universal service fund monetary support. There was no scientific or technical basis relied upon in the development of this regulation.

Document No. 3203

### PUBLIC SERVICE COMMISSION

CHAPTER 103

Statutory Authority: 1976 Code Section 58-3-140

103-607. Regulation Governing Telephone Utilities Offering Regulated Prepaid Local Exchange Services and Bonds or Other Security Mechanisms

### Synopsis:

The Public Service Commission has promulgated regulations governing telephone utilities which offer prepaid local exchange telephone service. The purpose of the promulgated regulation is to provide protection to consumers who do not receive services after they have paid money to the telephone utility to receive prepaid telephone service. The regulation delineates the scope of application of the regulation and the types of bonds and other security that the Commission may require the telephone utility to file with the Commission.

### Instructions:

Print the regulation in accordance with directions given below to reflect new regulation.

103-607. print new regulation as shown below

### Text:

103-607. Regulation Governing Telephone Utilities Offering Regulated Prepaid Local Exchange Services and Bonds or Other Security Mechanisms

This regulation applies to telephone utilities who provide retail residential prepaid local exchange services (requiring advance payment from customers prior to providing telecommunications service) and who individually or together with their affiliates, have not invested at least five million dollars in telecommunications facilities in the State of South Carolina. Advance payments include, but are not limited to, deposits, non-recurring connection and service fees, prepaid monthly service, and prepaid calling cards. The commission may waive this requirement upon petition by the telephone utility if the telephone utility provides evidence of financial stability as deemed appropriate by the commission. This regulation does not apply to Commercial Mobile Radio Services. Furthermore, this regulation applies solely to entrants certificated by the commission on or after the effective date of this regulation.

If a carrier requires prepayment for service, the commission shall determine the type and the amount of bond or other security mechanism to be filed by the carrier with the commission and the ORS. The commission may order the carrier to file a performance bond or post an irrevocable letter of credit or certificate of deposit. In determining the amount of the performance bond, irrevocable letter of credit, or certificate of deposit, the commission may use, at a minimum, any commercially reasonable acceptable method, including the following criteria: number of customers, retail price for prepaid service, and financial resources of the carrier.

a. Performance Bond. Performance bonds must be issued by an A-grade insurer acceptable to the commission and must be posted with the commission prior to offering prepaid service. However, the amount of the bond shall be no less than \$100,000. An updated bond shall be filed with the commission annually.

b. Irrevocable Letter of Credit. An irrevocable letter of credit shall be issued by a financial institution acceptable to the commission. The amount of the irrevocable letter of credit shall be determined by the commission; however, the amount of the letter of credit shall be no less than \$100,000. An updated irrevocable letter of credit shall be filed with the commission annually.

c. Certificate of Deposit. The certificate of deposit shall be issued by a financial institution acceptable to the commission and shall be no less than \$50,000.

#### Forfeiture of Bond or Other Security Mechanism

The commission, after notice and hearing, may order all or part of any bond or other security forfeited upon finding that the telephone utility has abandoned service to customers who have paid for those services in advance.

#### **Fiscal Impact Statement:**

There will be no increased costs to the State or its political subdivisions.

#### **Statement of Rationale:**

The purpose of 26 S.C. Code Ann. Regs. 103-607 is to create a regulation which governs the provisioning of prepaid local exchange telecommunications services regarding bonding or other forms of security. This regulation also serves to protect the interests of consumers who have made advance payments for telephone service. There was no scientific or technical basis relied upon in the development of this regulation.

Document No. 3223

### **PUBLIC SERVICE COMMISSION**

#### CHAPTER 103

Statutory Authority: 1976 Code Section 58-3-140

103-199.5. Adjustment of Bills

103-805. Representation

#### **Synopsis:**

The Public Service Commission has promulgated a regulation that governs the adjustment of bills issued by household goods motor carriers under the Commission's jurisdiction. This regulation helps to eliminate confusion and uncertainty when a household goods carrier has inadvertently or willfully overcharged or undercharged a customer, and the promulgated regulation helps to expedite the resolution of disputed bills. The Commission has also promulgated a regulation which governs representation of parties in cases pending before the Commission. This regulation provides guidance to parties regarding representation of entities, representation of individuals, notice of appearance, motion to withdraw from representation, and unopposed matters in which an entity may proceed without counsel.

#### **Instructions:**

Print the regulations in accordance with directions given below to reflect new regulations.

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103-199.5. Print as shown below

103-805. Print as shown below

### **Text:**

103-199.5. Adjustment of Bills.

If it is found that a household goods motor carrier has directly or indirectly, by any device whatsoever, demanded, charged, collected or received from any customer a greater or lesser compensation for any service rendered by such carrier than that prescribed in the schedules of such carrier applicable thereto, then filed in the manner provided in Title 58 of the South Carolina Code of Laws; or if it is found that any customer has received or accepted any service from a carrier for a compensation greater or lesser than that prescribed in such schedules; or if, for any reason, billing error has resulted in a greater or lesser charge than that incurred by the customer for the actual service rendered, then the method of adjustment for such overcharge or undercharge shall be provided by the following:

1. Customer Inadvertently Overcharged. If the carrier has inadvertently overcharged a customer as a result of a misapplied schedule or any other human or machine error, the carrier shall at the customer's option credit or refund the excess amount paid by that customer or credit the amount billed.

2. Customer Inadvertently Undercharged. If the carrier has undercharged any customer as a result of a misapplied schedule, or any human or machine error, then the carrier may recover the deficient amount. The customer shall be allowed to pay the deficient amount, in equal installments over a period of six months.

3. Customer Willfully Overcharged. If the utility has willfully overcharged any customer, the carrier shall refund the difference, plus interest, as prescribed by the commission.

4. Customers and Carriers shall have two (2) years from the date of the transaction in question in which to apply for an adjustment as provided in this Regulation.

103-805. Representation.

A. Parties and Their Representatives. Parties in a case have the right to participate or to be represented in all hearings or pre-hearing conferences related to their case. Except as otherwise provided herein, a party must be represented by an attorney admitted to practice law in South Carolina, or an attorney possessing a Limited Certificate of Admission pursuant to Rule 405, SCACR. No one shall be permitted to represent a party where such representation would constitute the unauthorized practice of law.

B. Representation of Entities. Except as otherwise provided in S.C. Code Ann. Regs. 103-805(E), any entity including, but not limited to, a corporation, partnership, limited liability company, or professional association, must be represented by an attorney admitted to practice law in South Carolina, or an attorney possessing a Limited Certificate of Admission pursuant to Rule 405, SCACR.

C. Representation of Individuals. An individual person not admitted to practice law in South Carolina may represent himself or herself, but may not represent another person. A party proceeding without legal representation shall remain fully responsible for compliance with the commission's regulations and the Administrative Procedures Act.

D. Notice of Appearance. An attorney or other person authorized to represent a party before the commission pursuant to this regulation shall file with the commission a notice of appearance when retained or authorized to represent a party after commencement of a case.

E. Unopposed Matters in Which an Entity May Proceed without Counsel. Subject to the conditions specified in this regulation, an entity may proceed through an authorized agent in any unopposed case, including but not limited to the following:



- 1) application for approval of a tariff,
- 2) application for approval of a contract,
- 3) application for approval of an interconnection agreement between telephone carriers,
- 4) application for approval of a name change,
- 5) application for a certificate of public convenience and necessity to operate as a Class C motor carrier, including a charter passenger carrier, a charter bus, and a taxi, and
- 6) application of a mover of household goods for a certificate of FWA.

If the entity chooses not to use an attorney, it shall include in its submission a written statement from the entity's president, chairperson, general partner, owner, chief executive officer, or authorized agent which states substantially the following:

"I am owner, officer, director, or other person authorized to act on behalf of [Name of Company], and on behalf of [Name of Company], I have elected to submit [Title of Document] to the Public Service Commission of South Carolina without the benefit of legal counsel admitted to practice in South Carolina. In electing to file [Title of Document] without legal counsel, I acknowledge and agree to assume the risk, if any, of resulting adverse legal consequences."

However, if the case becomes opposed, the unrepresented entity must obtain legal representation by an attorney authorized to practice law in South Carolina in order for the commission to allow the matter to proceed.

F. Motion to Withdraw from Representation. An attorney or other person authorized to represent a party before the commission pursuant to this regulation must file a written motion to withdraw from representation of a party or from participation in proceedings.

**Fiscal Impact Statement:**

There will be no increased costs to the State or its political subdivisions.

**Statement of Rationale:**

The bases for the proposed regulations include minimizing conflict regarding discrepancies on household goods motor carriers' bill by providing guidelines for the adjustment of bills and providing the public with notice regarding legal representation in cases before the Commission. It is the professional judgment of the Commission that these regulations are needed in the interest of judicial economy and to provide the public with adequate notice of the Commission's procedures. There was no scientific or technical basis relied upon in the development of this regulation.

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Document No. 3222

### PUBLIC SERVICE COMMISSION

#### CHAPTER 103

Statutory Authority: 1976 Code Section 58-3-140

- 103-514. Interruption of Service/Violation of Rules
- 103-714. Interruption of Service
- 103-830.1. Service between Parties of Record
- 103-831. Computation of Time

#### **Synopsis:**

The Public Service Commission has promulgated amended regulations regarding notification to the Commission of Department of Health and Environmental Control (DHEC) violations which result in the issuance of a DHEC order and included provisions for water and wastewater advisories. Further, the Commission has promulgated an amended regulation governing computation of time to exclude Petitions for Reconsideration and Rehearing. Finally, the Commission has promulgated a new regulation which allows for the electronic service of documents between parties of record.

#### **Instructions:**

Print the regulations in accordance with directions given below to reflect new regulations.

- 103-514 print as amended and shown below; A. & B. remain unchanged
- 103-714 print as amended and shown below; A. & B. remain unchanged
- 103-830.1 print as shown below
- 103-831 print as amended and shown below

#### **Text:**

103-514. Interruption of Service/Violation of Rules.

C. All Wastewater Utilities under the jurisdiction of the commission shall file with the commission and the ORS in writing a notice of any violation of a PSC regulation or a DHEC regulation which results in the issuance of a DHEC order. If the report includes information regarding a DHEC violation which results in the issuance of a DHEC order, the filer shall note if the DHEC order is under appeal and shall inform the commission of the resolution of the appeal. This notice shall be filed within twenty-four hours of the time of the inception of the violation or of the utility's receipt of the issuance of a DHEC order and shall detail the steps taken to correct the violation, if the violation is not corrected at the time of occurrence. The Company shall notify the commission and the ORS in writing within fourteen calendar days after the violation has been corrected.

D. All Wastewater Utilities under the jurisdiction of the commission shall provide the ORS Consumer Services Division a copy of all advisories affecting ten or more customers within twenty-four hours of issuance. The utility shall notify the ORS Consumer Services Division in writing when the advisory has been lifted.

103-714. Interruption of Service.

C. All Water Utilities under the jurisdiction of the commission shall file with the commission and the ORS in writing a notice of any violation of a PSC regulation or a DHEC regulation which results in the issuance of a DHEC order. If the report includes information regarding a DHEC violation which results in the issuance of a DHEC order, the filer shall note if the DHEC order is under appeal and shall inform the commission of the resolution of the appeal. This notice shall be filed within twenty-four hours of the time of the inception of the

violation or of the utility's receipt of the issuance of a DHEC order and shall detail the steps to be taken to correct the violation, if the violation is not corrected at the time of occurrence. The Company shall notify the commission and the ORS in writing within fourteen calendar days after the violation has been corrected.

D. All Water Utilities under the jurisdiction of the commission shall provide the ORS Consumer Services Division a copy of all advisories affecting ten or more customers within twenty-four hours of issuance. The utility shall notify the ORS Consumer Services Division in writing when the advisory has been lifted.

#### 103-830.1. Service between Parties of Record.

Upon written agreement by all the parties in a docket, service of filings made in a docket at the commission may be made through e-mail or electronic service. The written agreement memorializing the parties' consents shall be filed with the commission in the appropriate docket.

#### 103-831. Computation of Time.

The computation of time shall be governed by Rule 6 of the South Carolina Rules of Civil Procedure. Extensions of time may be granted by the commission for good cause shown. The provisions of Regulation 103-831 do not apply to Petitions for Rehearing or Reconsideration.

#### **Fiscal Impact Statement:**

There will be no increased costs to the State or its political subdivisions.

#### **Statement of Rationale:**

The purpose of 26 S.C. Code Ann. Regs. 103-514, 103-714, 103-830.1, and 103-831 is to provide, *inter alia*, that the Commission and the ORS are to be notified of violations of DHEC regulations that result in the issuance of a DHEC order; to exclude Petitions for Rehearing and Reconsideration from the regulation governing computation of time, as these Petitions are governed by statutes; and to allow for electronic service of pleadings between parties. There was no scientific or technical basis relied upon in the development of this regulation.

Document No. 4020

### **PUBLIC SERVICE COMMISSION**

#### CHAPTER 103

Statutory Authority: 1976 Code Section 58-3-140

#### 103-133(8). PC&N (Stretcher Vans)

#### **Synopsis:**

The Public Service Commission of South Carolina (Commission) proposes to create a new regulation governing stretcher vans. The proposed regulation was previously published in the State Register on April 25, 2008, and the Commission held a public hearing regarding the proposed regulation on Wednesday, June 25, 2008. On August 27, 2008, the Commission voted to retain jurisdiction of the proposed stretcher van regulation at the Commission for further consideration and to reopen the written comment period, giving the public until October 31, 2008, to file written comments on the proposed regulation. The new promulgated stretcher van regulation defines stretcher vans and provides governing driver and assistant driver qualifications/requirements, vehicle requirements, and limitations and conditions of service.

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### Instructions:

Print the regulation in accordance with directions given below to reflect new regulation.

103-133(8). print as shown below

### Text:

103-133(8). PC&N (Stretcher Vans).

Stretcher van service is a mode of non-emergency transportation which may be provided to an individual who cannot be transported in a taxi or wheelchair van due to being non-ambulatory. Stretcher vans are not required or authorized to provide medical monitoring, medical aid, medical care or medical treatment of passengers during their transport. Self-administered oxygen is permitted. In addition to meeting the requirements set out in 103-133(4) and 103-133(6) above, applicants for a Certificate of Public Convenience and Necessity for stretcher van vehicles must meet the following requirements:

#### A. Driver and Assistant Driver Qualifications/Requirements

1. While providing transportation for hire, all stretcher vans shall be staffed by both a primary and an assistant driver. In addition to the general requirements provided for in 103-133(6) (A), stretcher van drivers and driver assistants shall be trained in transferring, loading and unloading passengers in stretchers.

2. A stretcher van passenger shall not be left unattended at any time.

3. The driver and driver assistant shall confirm that all restraining straps are fastened properly and the stretcher, stretcher fasteners and anchorages are properly secured prior to the vehicle transporting a passenger.

4. The driver assistant shall be seated in the passenger compartment while the vehicle is in motion and shall notify the driver of any change in the passenger's status.

5. All drivers and assistant drivers must be a minimum of 18 years of age.

6. Driving Record – The certificate holder must obtain and retain a certified copy of the driver's and the assistant driver's three (3) year driving records issued by the South Carolina Department of Motor Vehicles and such records from the DMV of the state in which the driver or the assistant driver is or has been domiciled for such period.

7. State Criminal Background Check – The certificate holder must obtain and retain criminal history background checks from the state where the driver and assistant driver currently live.

8. Drivers License – All drivers and assistant drivers operating a stretcher van must have in their possession at the time of such operation valid drivers' licenses issued by the South Carolina Department of Motor Vehicles or the current state of residence of the driver or assistant driver.

9. Sex Offender Registry – All stretcher van certificate holders are prohibited from employing drivers and assistant drivers who are registered, or required to be registered, as sex offenders with the South Carolina State Law Enforcement Division (SLED) or any national registry of sex offenders. All drivers and assistant drivers who are registered, or required to be registered, as sex offenders with SLED or any national registry of sex offenders are prohibited from driving a stretcher van. Any driver or assistant driver who is placed on a Sex Offender Registry shall notify the ORS and the certificate holder under which he operates of his status and shall immediately cease to operate the stretcher van.

10. All drivers and assistant drivers must possess a current Red Cross First Aid certification or an American Safety and Health Institute certification, or certification from a program that meets or exceeds the certification standards of the Red Cross First Aid or the American Safety and Health Institute, and Adult Cardiopulmonary Resuscitation (CPR) certification. The Red Cross First Aid certification must be renewed every three years, and the Adult CPR certification must be renewed annually.

## B. Vehicle Requirements

1. The stretcher van must be equipped with a stretcher used to transport individuals in the supine or Fowler's position.
2. Passengers shall be loaded headfirst.
3. The approved stretcher shall be elevating and wheeled. A minimum of three (3) patient restraining straps (chest, waist, and thigh) at least two (2) inches wide shall be provided. The stretcher van shall have proper means to secure the stretcher in its position under all conditions. Crash-stable stretcher fasteners must be provided.
4. A stretcher van vehicle must be maintained in good repair and safe operating condition and shall meet the same motor vehicle safety requirements as apply to all vehicles in South Carolina. Exterior surfaces of the vehicle including windows, mirrors, warning devices and lights must be undamaged and kept clean of dirt and debris.
5. Safety belts must be provided for all passengers.
6. Self-administered oxygen must be secured in accordance with AMD (Ambulance Manufacturers Division of the National Truck Equipment Association) Standard 003, "Oxygen Tank Retention System Test."
7. The interior of the stretcher van vehicle shall include secured storage compartments.
8. All storage compartments, supplies and equipment shall be kept clean and sanitary.
9. A stretcher van shall not contain medical equipment or supplies or display any marking, symbols or warning devices that imply that it offers medical care or ambulance transportation.
10. A stretcher van shall not respond or transport a person if the request for service originated within a public dispatch system.

## C. Limitations and Conditions of Service

1. Stretcher van vehicles shall not be used:
  - a. To transport a passenger who requires medical monitoring.
  - b. To transport more than one (1) stretcher passenger at a time.
  - c. To transport a person who is being administered intravenous fluids.
  - d. To transport a person who needs or may need oxygen unless that person's physician has prescribed oxygen as a self-administered therapy.
  - e. To transport a passenger who needs or may need suctioning.
  - f. To transport a passenger who has sustained an injury and has not yet been evaluated by a physician.
  - g. To transport a passenger who is experiencing an acute condition or the exacerbation of a chronic condition or a sudden injury or illness.
  - h. To transport a passenger who needs to be transported from one hospital to another hospital if the destination hospital is the same level or a higher level as the hospital of origin.
  - i. To transport a passenger who is being evaluated in an emergency room and for any reason must be transported to another hospital for diagnostic tests that are not available at the first hospital.
2. An individual must not be transported in a stretcher van, if the individual has a written statement from a licensed physician stating that the individual must not be transported in a stretcher van.

### **Fiscal Impact Statement:**

There will be no increased costs to the State or its political subdivisions.

### **Statement of Rationale:**

The purpose of 26 S.C. Code Ann. Regs. 103-133(8) is to create a regulation that governs stretcher vans. This regulation is needed to provide guidelines for non-emergency transportation for individuals who cannot be transported in a taxi or wheelchair van due to being non-ambulatory. The proposed regulation provides vehicle, driver and assistant driver qualifications and further provides for limitations and conditions of service. There was no scientific or technical basis relied upon in the development of this regulation.

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Document No. 4005

### DEPARTMENT OF REVENUE

#### CHAPTER 117

Statutory Authority: 1976 Code Section 12-4-320

#### 117-1350. Deed Recording Fee

##### **Synopsis:**

The South Carolina Department of Revenue is considering amending SC Regulation 117-1350 concerning the deed recording fee to incorporate longstanding Department of Revenue policy concerning common real estate transactions and deed recording fee issues. This policy is presently set forth in an advisory opinion issued by the Department – SC Revenue Ruling #04-6 – and the Department’s deed recording fee manual.

##### **Instructions:**

Amend SC Regulation 117-1350 concerning the deed recording fee to incorporate longstanding Department of Revenue policy concerning common real estate transactions and deed recording fee issues.

##### **Text:**

#### 117-1350 Deed Recording Fee

South Carolina imposes a deed recording fee pursuant to Chapter 24 of Title 12. This fee is composed of two fees – a state fee and a county fee. The fee is collected by the office of the clerk of court or register of deeds, which remits the state portion of the fee to the Department of Revenue on a monthly basis.

The purpose of this regulation is to provide a comprehensive discussion of the application of the deed recording fee to a wide variety of real estate transactions.

#### 117-1350.1 Basis for the Fee

The deed recording fee is imposed for the privilege of recording a deed based on the transaction of transferring realty from one person to another person.

When the consideration paid for realty is money, then the deed recording fee is based on the money paid.

When the consideration paid for realty is “money’s worth” (e.g., other realty, stocks, forgiveness of debt), then the taxpayer must base the deed recording fee upon one of the following:

- (a) the fair market value of the consideration paid,
- (b) the fair market value of the realty being transferred, or
- (c) the fair market value for property tax purposes of the realty being transferred.

When the realty is being “transferred between a corporation, a partnership, or other entity and its stockholder, partner, or owner,” or the realty is being “transferred to a trust or as a distribution to a trust beneficiary,” then the taxpayer must base the deed recording fee upon one of the following:

- (a) the fair market value of the realty being transferred, or
- (b) the fair market value for property tax purposes of the realty being transferred.

It should also be noted that a “deduction from value is allowed for the amount of any lien or encumbrance existing on the land, tenement, or realty before the transfer and remaining on the land, tenement, or realty after the transfer.” As such, when the fair market value of the realty being transferred is used to calculate the fee, the value of the lien or encumbrance qualifying for this deduction may be deducted from the realty’s fair market value before calculating the deed recording fee due.

The following are examples of the “value” as defined in deed recording fee law and used in determining the deed recording fee due:

Example 1 Transaction: Realty transferred from John Doe to Jerry Public for \$1,000 and the assumption of a mortgage with a balance of \$81,000.

Value: \$1,000. Since the mortgage existed on the realty before the transfer and remained on the realty after the transfer, the \$81,000 is deducted from the total consideration of \$82,000.

Example 2 Transaction: Realty transferred from John Doe to Jerry Public for \$82,000. The grantor paid \$1,000 down and \$81,000 at closing by obtaining a mortgage at a local financial institution.

Value: \$82,000. Since the mortgage did not exist on the realty before the transfer, the \$81,000 cannot be deducted from the total consideration of \$82,000.

Example 3 Transaction: Realty transferred from John Doe to XYZ Bank for cancellation of debt. The balance due on the debt, plus accumulated interest, is \$121,000. This is not a deed in lieu of foreclosure.

Value: \$121,000. By statute, consideration includes the forgiveness or cancellation of a debt. However, the value used may be less than \$121,000 if the fair market value of the realty is less than \$121,000 and the taxpayer elects to use the fair market value of the realty being transferred in determining fair market value of the consideration. In addition, the taxpayer may elect to use the fair market value for property tax purposes in determining fair market value.

Example 4 Transaction: Realty transferred from John Doe to Jerry Public for the cancellation of a debt, not associated with the realty, of \$50,000.

Value: \$50,000. By statute, consideration includes the forgiveness or cancellation of a debt. However, the value used may be less than \$50,000 if the fair market value of the realty is less than \$50,000 and the taxpayer elects to use the fair market value of the realty being transferred in determining fair market value of the consideration. In addition, the taxpayer may elect to use the fair market value for property tax purposes in determining fair market value.

Example 5 Transaction: Realty transferred from XYZ Corporation to one of its stockholders - John Doe. The fair market value of the realty for property tax purposes is \$90,000. No lien or encumbrance existed on the realty prior to the transfer.

Value: \$90,000 By statute, the fair market value of the realty must be used in calculating the fee due in a transaction between a corporation and one of its stockholders. Taxpayers may elect to use the fair market value for property tax purposes in determining fair market value under the law.

#### 117-1350.2 Examples of the Application of the Deed Recording Fee to Various Real Estate Transactions

The following are questions and answers to common real estate transactions and issues.

Value:

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### 1. What is the basis for the deed recording fee?

The basis for the deed recording fee is the realty's value. Code Section 12-24-30 defines the term "value" and states:

(A) For purposes of this chapter, the term "value" means the consideration paid or to be paid in money or money's worth for the realty including other realty, personal property, stocks, bonds, partnership interest, and other intangible property, the forgiveness or cancellation of a debt, the assumption of a debt, and the surrendering of a right. The fair market value of the consideration must be used in calculating the consideration paid in money's worth. Taxpayers may elect to use the fair market value of the realty being transferred in determining fair market value of the consideration under the provisions of this section. However, in the case of realty transferred between a corporation, a partnership, or other entity and its stockholder, partner, or owner, and in the case of realty transferred to a trust or as a distribution to a trust beneficiary, "value" means the realty's fair market value.

(B) A deduction from value is allowed for the amount of any lien or encumbrance existing on the land, tenement, or realty before the transfer and remaining on the land, tenement, or realty after the transfer.

(C) Taxpayers may elect to use the fair market value as determined for property tax purposes in determining fair market value under the provisions of this section.

2. If realty is transferred for money, and not money's worth such as services, other realty, forgiveness of debt, etc., what is the basis for the deed recording fee if the transaction does not involve realty transferred between a corporation, a partnership, or other entity and its stockholder, partner, or owner, or realty transferred to a trust or as a distribution to a trust beneficiary?

Code Section 12-24-30, in subsection (A), states that the fair market value of the realty may be used "in determining fair market value of the consideration under the provisions of this section." The only mention to fair market value in subsection (A) concerns when the consideration is in money's worth, or when the transaction involves a business entity and its owners or a trust. Subsection (C) allows the fair market value for property taxes to be used again only "in determining fair market value under the provisions of this section."

Therefore, if realty is transferred for money, and not money's worth, the basis for the deed recording fee is the money paid or to be paid if the transaction does not involve realty transferred between a corporation, a partnership, or other entity and its stockholder, partner, or owner, or realty transferred to a trust or as a distribution to a trust beneficiary. The realty's fair market value cannot be used in this case.

3. If realty is transferred for money's worth, such as services, other realty, forgiveness of debt, etc., what is the basis for the deed recording fee if the transaction does not involve realty transferred between a corporation, a partnership, or other entity and its stockholder, partner, or owner, or realty transferred to a trust or as a distribution to a trust beneficiary?

If realty is transferred for money's worth, such as services, other realty, forgiveness of debt, etc., and the transaction does not involve realty transferred between a corporation, a partnership, or other entity and its stockholder, partner, or owner, or realty transferred to a trust or as a distribution to a trust beneficiary, then the taxpayer must base the deed recording fee upon one of the following:

- (a) the fair market value of the consideration paid,
- (b) the fair market value of the realty being transferred, or
- (c) the fair market value for property tax purposes of the realty being transferred.



It should also be noted that a “deduction from value is allowed for the amount of any lien or encumbrance existing on the land, tenement, or realty before the transfer and remaining on the land, tenement, or realty after the transfer.” As such, when the fair market value of the realty being transferred is used to calculate the fee, the value of the lien or encumbrance qualifying for this deduction may be deducted from the realty’s fair market value before calculating the deed recording fee due.

4. What is the basis for the deed recording fee if the transaction involves realty transferred between a corporation, a partnership, or other entity and its stockholder, partner, or owner, or realty transferred to a trust or as a distribution to a trust beneficiary?

When the realty is being “transferred between a corporation, a partnership, or other entity and its stockholder, partner, or owner,” or the realty is being “transferred to a trust or as a distribution to a trust beneficiary,” then the taxpayer must base the deed recording fee upon one of the following:

- (a) the fair market value of the realty being transferred, or
- (b) the fair market value for property tax purposes of the realty being transferred.

It should also be noted that a “deduction from value is allowed for the amount of any lien or encumbrance existing on the land, tenement, or realty before the transfer and remaining on the land, tenement, or realty after the transfer.” As such, when the fair market value of the realty being transferred is used to calculate the fee, the value of the lien or encumbrance qualifying for this deduction may be deducted from the realty’s fair market value before calculating the deed recording fee due.

Responsible Person Signing the Affidavit:

5. Who may sign the affidavit required under Code Section 12-24-70?

The affidavit required under Code Section 12-24-70 must be signed by a responsible person connected with the transaction and the affidavit must state that connection. A “responsible person connected with the transaction” includes, but is not limited to, the grantor, grantee, and an attorney involved in the transaction. However, secretaries, paralegals, runners, and other administrative personnel do not qualify as a “responsible person connected with the transaction” and, therefore, may not sign the affidavit.

Realty Located in More Than One County:

6. If realty is located in more than one county, how should the deed recording fee be paid when the deed is filed in each county?

Code Section 12-24-50 answers this question and states:

The fee imposed by this chapter must be remitted to the clerk of court or the register of deeds in the county in which the realty is located and recorded. If the realty is located in more than one county, the person having the deed recorded in a county must state by affidavit what portion of the value of the realty is in that county and payment of the fee must be made based on the proportionate value of the realty located in that county.

Unrecorded Deeds:

7. Are deeds that transfer realty but are not recorded at the courthouse (the office of the clerk of court, register of deeds, register of mesne conveyance or other recording official) subject to the deed recording fee?

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Deeds that transfer realty but are not recorded at the courthouse (the office of the clerk of court, register of deeds, register of mesne conveyance or other recording official) are not subject to the deed recording fee since under Code Section 12-24-10 “a recording fee is imposed for the privilege of recording a deed” and therefore the deed recording fee is not applicable until the deed is recorded.

Refunds:

8. What are the procedures for applying for a refund of the deed recording fee?

The deed recording fee requires that each deed have a notation placed upon it by the Clerk of Court or the Register of Deeds (“ROD”). This notation must include the date the deed was filed, the fee collected, and any other information the county may require. The notation must state “Exempt” if the transaction falls within one of the exemptions provided under Code Section 12-24-40.

If a taxpayer seeks a refund of any fee paid, the following procedure must be followed:

(a) The original deed and the original affidavit (if the requirement for the affidavit has not been waived by the clerk or register) must be presented to the Clerk of Court or ROD. The Clerk or ROD will verify that the notation on the deed is the notation placed on the deed by the Clerk or ROD. The Clerk or ROD will then sign a letter or form verifying that the notation is authentic and present this to the taxpayer.

(b) The taxpayer should then forward the original deed, the original affidavit and the notation verification letter or form to the Department of Revenue. The taxpayer should also include a cover letter requesting the refund and containing all the information required by Code Section 12-60-470. All refund requests for deed recording fees should be mailed to:

SC Department of Revenue  
Refund Request - Deed Recording Fee  
P.O. Box 125  
Columbia, South Carolina 29214

All refund requests received without the notation verification letter or form will be sent back to the taxpayer with a letter stating that the notation must first be verified by the Clerk or ROD and that the refund request must contain the verification letter or form. Refunds will also not be issued unless the Department receives the original deed and the original affidavit (unless the requirement for the affidavit has been previously waived by the Clerk or ROD).

(c) If a refund is due, the Department will refund the State portion to the taxpayer and issue an order to the Clerk or ROD to refund the taxpayer the county portion of the fee. The Clerk or ROD should not issue a refund for the county portion of the fee unless they have received a refund order from the Department of Revenue. The Department, prior to returning the original deed and other documentation to the taxpayer, will note on the deed the date of the refund and the amount of the refund issued/ordered.

(d) If the Department determines a refund is not due, the Department will advise the taxpayer. The taxpayer may appeal this denial of the refund under the provisions of Code Sections 12-60-470 and 12-24-150.

Gifts From One Individual To Another Individual:

9. Are deeds that transfer realty from one individual to another individual as a gift (no consideration paid of any kind) subject to the deed recording fee?

Deeds that transfer realty from one individual to another individual as a gift (no consideration paid of any kind) are exempt from the deed recording fee under Code Section 12-24-40(1).

## Family Deeds:

10. Are deeds that transfer realty to a spouse subject to the deed recording fee?

Deeds that transfer realty to a spouse are exempt from the deed recording fee under Code Section 12-24-40(4) regardless of whether or not any consideration was paid or will be paid for the transfer.

11. Are deeds that transfer realty to a family member, other than a spouse, subject to the deed recording fee?

Deeds that transfer realty to a family member, other than a spouse, are subject to the deed recording fee based on the consideration paid for the realty, unless otherwise exempt from the deed recording fee. The following are examples of deeds between family members (other than spouses) that are subject to the deed recording fee unless otherwise exempt under Code Section 12-24-40:

- (a) a transfer to a brother for \$30,000.00,
- (b) a transfer to a sister in exchange for the forgiveness of a debt,
- (c) a transfer to a child for \$10,000.00,
- (d) a transfer to a brother in exchange for other realty, and
- (e) a transfer to a sister in exchange for paying off the mortgage on the realty.

The following are examples of deeds between family members (other than spouses) that are exempt from the deed recording fee under Code Section 12-24-40:

- (a) a transfer in which the consideration that is paid or will be paid is equal to or less than \$100.00 (12-24-40(1)),
- (b) a transfer in order to partition realty, as long as no consideration is paid for the transfer other than the interests in the realty that are exchanged in order to effect the partition (12-24-40(5)),
- (c) a transfer that constitutes a contract for the sale of timber to be cut (12-24-40(7)) (see questions concerning timber deeds),
- (d) a transfer in which the realty is subject to a mortgage and the family member receiving the realty is the mortgagee and the transfer constitutes a deed in lieu of foreclosure executed by the family member that is the mortgagor or a deed executed pursuant to a foreclosure proceeding (12-24-40(13)). (see questions concerning foreclosure proceedings), and
- (e) a transfer otherwise exempt under the provisions of Code Section 12-24-40.

12. Are deeds that transfer realty to a former spouse subject to the deed recording fee?

Deeds that transfer realty to a former spouse are subject to the deed recording fee based on the consideration paid for the realty, unless otherwise exempt from the deed recording fee. The following are examples of deeds to a former spouse that are subject to the deed recording fee unless otherwise exempt under Code Section 12-24-40:

- (a) a transfer in exchange for past due alimony payments when the transfer of the realty is not pursuant to the terms of the divorce decree or settlement,

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- (b) a transfer for \$30,000.00,
- (c) a transfer in exchange for the forgiveness of a debt,
- (d) a transfer in exchange for other realty, and
- (e) a transfer in exchange for paying off the mortgage on the realty.

The following are examples of deeds to a former spouse that are exempt from the deed recording fee under Code Section 12-24-40:

- (a) a transfer in which the consideration that is paid or will be paid is equal to or less than \$100.00 (12-24-40(1)),
- (b) a transfer pursuant to the terms of the divorce decree or settlement,
- (c) a transfer in order to partition realty, as long as no consideration is paid for the transfer other than the interests in the realty that are exchanged in order to effect the partition (12-24-40(5)),
- (d) a transfer that constitutes a contract for the sale of timber to be cut (12-24-40(7)) (see questions concerning timber deeds),
- (e) a transfer in which the realty is subject to a mortgage and the former spouse receiving the realty is the mortgagee and the transfer constitutes a deed in lieu of foreclosure executed by the grantor as the mortgagor or a deed executed pursuant to a foreclosure proceeding (12-24-40(13)). (see questions concerning foreclosure proceedings), and
- (f) a transfer otherwise exempt under the provisions of Code Section 12-24-40.

Charitable Deeds:

13. Are deeds that transfer realty to a church or other charitable organization subject to the deed recording fee?

Deeds that transfer realty to a church or other charitable organization are subject to the deed recording fee based on the consideration paid for the realty, unless otherwise exempt from the deed recording fee. The following are examples of deeds to a church or other charitable organization that are subject to the deed recording fee unless otherwise exempt under Code Section 12-24-40:

- (a) a transfer for \$50,000.00,
- (b) a transfer in exchange for other realty whether or not the transaction qualifies as a like-kind exchange for federal income tax purposes (both deeds are subject to the deed recording fee), and
- (c) a transfer of realty with a fair market value of \$100,000.00 for only \$50,000.00 (the deed recording fee is based upon \$50,000.00).

Note: If the church or other charitable organization is a stockholder, partner, limited liability company member, or trust beneficiary of the grantor (corporation, partnership, limited liability company or trust), then the deed recording fee is based on the fair market value of the realty or the fair market value of the realty for property tax purposes.

The following are examples of deeds to a church or other charitable organization that are exempt from the deed recording fee under Code Section 12-24-40:

- (a) a transfer in which the consideration that is paid or will be paid is equal to or less than \$100.00 (12-24-40(1)),
- (b) a transfer in order to partition realty, as long as no consideration is paid for the transfer other than the interests in the realty that are exchanged in order to effect the partition (12-24-40(5)),
- (d) a transfer that constitutes a contract for the sale of timber to be cut (12-24-40(7)) (see questions concerning timber deeds),
- (e) a transfer in which the realty is subject to a mortgage and the church or other charitable organization receiving the realty is the mortgagee and the transfer constitutes a deed in lieu of foreclosure executed by the grantor as the mortgagor or a deed executed pursuant to a foreclosure proceeding (12-24-40(13)) (see questions concerning foreclosure proceedings), and
- (f) a transfer otherwise exempt under the provisions of Code Section 12-24-40.

14. Are deeds that transfer realty from a church or other charitable organization to an individual or business subject to the deed recording fee?

Deeds that transfer realty from a church or other charitable organization to an individual or business are subject to the deed recording fee based on the consideration paid for the realty, unless otherwise exempt from the deed recording fee. The following are examples of deeds to a church or other charitable organization that are subject to the deed recording fee unless otherwise exempt under Code Section 12-24-40:

- (a) a transfer for \$50,000.00, and
- (b) a transfer in exchange for other realty whether or not the transaction qualifies as a like-kind exchange for federal income tax purposes (both deeds are subject to the deed recording fee).

The following are examples of deeds from a church or other charitable organization to an individual or business that are exempt from the deed recording fee under Code Section 12-24-40:

- (a) a transfer in which the consideration that is paid or will be paid is equal to or less than \$100.00 (12-24-40(1)),
- (b) a transfer in order to partition realty, as long as no consideration is paid for the transfer other than the interests in the realty that are exchanged in order to effect the partition (12-24-40(5)),
- (c) a transfer that constitutes a contract for the sale of timber to be cut (12-24-40(7)) (see questions concerning timber deeds),
- (d) a transfer in which the realty is subject to a mortgage and the individual or business receiving the realty is the mortgagee and the transfer constitutes a deed in lieu of foreclosure executed by the church or other charitable organization as the mortgagor or a deed executed pursuant to a foreclosure proceeding (12-24-40(13)) (see questions concerning foreclosure proceedings), and
- (e) a transfer otherwise exempt under the provisions of Code Section 12-24-40.

Deeds from an Estate:

15. Are deeds that transfer realty from an estate to a beneficiary subject to the deed recording fee?

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Deeds that transfer realty from an estate to a beneficiary are subject to the deed recording fee based on the consideration paid for the realty, unless otherwise exempt from the deed recording fee. The following are examples of deeds from an estate to a beneficiary that are subject to the deed recording fee unless otherwise exempt under Code Section 12-24-40:

- (a) a transfer pursuant to the will where the will requires the beneficiary to pay a consideration for the realty, and
- (b) a transfer in which the beneficiary of the realty directs the personal representative of the estate to transfer the realty directly to a third party in exchange for a consideration paid to the personal representative or the beneficiary (e.g., cash, forgiveness of a debt, etc.).

The following are examples of deeds from an estate to a beneficiary that are exempt from the deed recording fee under Code Section 12-24-40:

- (a) a transfer in which the consideration that is paid or will be paid is equal to or less than \$100.00 (12-24-40(1)),
- (b) a deed of distribution assigning, transferring, or releasing real property to the distributee of a decedent's estate pursuant to Code Section 62-3-907 as evidence of the distributee's title to the property, and
- (c) a transfer otherwise exempt under the provisions of Code Section 12-24-40.

16. Are deeds that transfer realty from an estate to a third party for a consideration in order to pay off debts of the estate subject to the deed recording fee?

Deeds that transfer from an estate to a third party for a consideration in order to pay off debts of the estate are subject to the deed recording fee if the consideration paid (including debts forgiven) for the transfer of realty is more than \$100.00 and the transfer is not otherwise exempt under Code Section 12-24-40.

Deeds to and from Trusts:

17. Are deeds that transfer realty into a trust subject to the deed recording fee?

Deeds that transfer realty into a trust are subject to the deed recording fee based on the fair market value of the realty, except for the following deeds:

- (a) a transfer to a trust by a beneficiary of the trust or by a person who will become a beneficiary of the trust as a result of the transfer as long as no consideration is paid for the transfer other than beneficial interest in the trust or an increase in value in the beneficial interest in the trust (12-24-40(8)),
- (b) a transfer from one family trust to another family trust for the same family, provided no consideration is paid or will be paid for the transfer (12-24-40(8) and 12-24-40(9)),
- (c) a transfer in order to partition realty, as long as no consideration is paid for the transfer other than the interests in the realty that are exchanged in order to effect the partition (12-24-40(5)),
- (d) a transfer in which the realty is subject to a mortgage and the trust receiving the realty is the mortgagee and the transfer constitutes a deed in lieu of foreclosure executed by the mortgagor or a deed executed pursuant to a foreclosure proceeding (12-24-40(13)) (see questions concerning foreclosure proceedings), and
- (e) a transfer otherwise exempt under the provisions of Code Section 12-24-40.

18. Are deeds that transfer realty from a trust to an individual or other legal entity subject to the deed recording fee?

Deeds that transfer realty from a trust to an individual or other legal entity are subject to the deed recording fee based on the fair market value of the realty if the grantee is a beneficiary of the trust, except for the following deeds:

- (a) a transfer from a family trust to a trust beneficiary as long as no consideration is paid for the transfer other than a reduction in the grantee's interest in the family trust (12-24-40(9)),
- (b) a transfer from one family trust to another family trust for the same family, provided no consideration is paid or will be paid for the transfer (12-24-40(8) and 12-24-40(9)),
- (c) a transfer in order to partition realty, as long as no consideration is paid for the transfer other than the interests in the realty that are exchanged in order to effect the partition (12-24-40(5)),
- (d) a transfer in which the realty is subject to a mortgage and the trust beneficiary receiving the realty is the mortgagee and the transfer constitutes a deed in lieu of foreclosure executed by the family trust that is the mortgagor or a deed executed pursuant to a foreclosure proceeding (12-24-40(13)) (see questions concerning foreclosure proceedings), and
- (e) a transfer otherwise exempt under the provisions of Code Section 12-24-40.

Deeds that transfer realty from a trust to an individual or other legal entity are subject to the subject to the deed recording fee based on the consideration paid or to be paid if the grantee is not a beneficiary of the trust, the consideration paid or to be paid is more than \$100.00, and the transfer is not otherwise exempt under Code Section 12-24-40.

Deeds to and from Partnerships:

19. Are deeds that transfer realty from a partner to the partnership subject to the deed recording fee?

Deeds that transfer realty from a partner to the partnership are subject to the deed recording fee based on the fair market value of the realty, except for the following deeds:

- (a) a transfer from a partner to the partnership if no consideration is paid for the transfer other than additional interest in the partnership or an increase in value in the partner's interest in the partnership (12-24-40(8)),
- (b) a transfer in order to partition realty owned jointly by the partner and the partnership of which he is a partner, as long as no consideration is paid for the transfer other than the interests in the realty that are exchanged in order to effect the partition (12-24-40(5)), and
- (c) a transfer that is otherwise exempt under Code Section 12-24-40.

20. Are deeds that transfer realty from the partnership to a partner subject to the deed recording fee?

Deeds that transfer realty from the partnership to a partner, including deeds transferring realty to the partner upon liquidation of the partnership, are subject to the deed recording fee based on the fair market value of the realty, except for the following deeds:

- (a) a transfer from a family partnership to a partner as long as no consideration is paid for the transfer other than a reduction in the grantee's interest in the partnership (12-24-40(9)),

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(b) a transfer in order to partition realty owned jointly by the partner and the partnership of which he is a partner, as long as no consideration is paid for the transfer other than the interests in the realty that are exchanged in order to effect the partition (12-24-40(5)),

(c) a transfer in which the realty is subject to a mortgage and the partner receiving the realty is the mortgagee and the transfer constitutes a deed in lieu of foreclosure executed by the partnership that is the mortgagor or a deed executed pursuant to a foreclosure proceeding (12-24-40(13)) (see questions concerning foreclosure proceedings), and

(d) a transfer otherwise exempt under the provisions of Code Section 12-24-40.

21. Are deeds that transfer realty from a non-partner to a partnership, or from a partnership to a non-partner, subject to the deed recording fee?

Deeds that transfer realty from a non-partner to a partnership are subject to the deed recording fee if the consideration paid or to be paid is more than \$100.00 and the transfer is not otherwise exempt under Code Section 12-24-40.

If a consideration of \$100.00 or less is paid or the transfer is otherwise exempt under Code Section 12-24-40, then the deed transferring realty from a non-partner to the partnership is exempt from the deed recording fee.

22. If Partnership A and Partnership B have the same partners but neither partnership is a partner in the other, is a deed that transfers realty from Partnership A to Partnership B subject to the deed recording fee?

If Partnership A and Partnership B have the same partners but neither partnership is a partner in the other, then a deed that transfers realty from Partnership A to Partnership B is subject to the deed recording fee if the consideration paid or to be paid is more than \$100.00 and the transfer is not otherwise exempt under Code Section 12-24-40.

If a consideration of \$100.00 or less is paid or the transfer is otherwise exempt under Code Section 12-24-40, then the deed transferring realty from Partnership A to Partnership B is exempt from the deed recording fee.

Limited Liability Company ("LLC") Deeds:

23. How are deeds that transfer realty to and from a limited liability company ("LLC") treated under the deed recording fee law?

Deeds that transfer realty to and from an LLC, which is treated as a partnership for South Carolina income tax purposes, are treated in the same manner under the deed recording fee as deeds that transfer realty to and from a partnership. See the section in this regulation concerning deeds to and from partnerships.

Deeds that transfer realty to and from an LLC, which is treated as a corporation for South Carolina income tax purposes, are treated in the same manner under the deed recording fee as deeds that transfer realty to and from a corporation. See the section in this regulation concerning deeds to and from corporations.

Deeds that transfer realty to and from a single member LLC ("SMLLC"), which is treated as a corporation for South Carolina income tax purposes, are treated in the same manner under the deed recording fee as deeds that transfer realty to and from a corporation. See the section in this regulation concerning deeds to and from corporations.

Deeds that transfer realty to the SMLLC from its single member, and deeds that transfer realty to the single member of the SMLLC from the SMLLC, are not subject to the deed recording fee if the SMLLC is ignored for all tax purposes under the provisions of Code Section 12-2-25(B).



Deeds that transfer realty from the SMLLC to a person who is not the single member, and deeds that transfer realty from a person who is not the single member to the SMLLC, are treated as if the realty were transferred from or to the single member if the SMLLC is ignored for all tax purposes under the provisions of Code Section 12-2-25(B). As such, the application will depend on the facts and circumstances of the transfer and on whether the single member is an individual, partnership, LLC, trust or corporation.

Written instruments whereby a single member transfers its interest in the SMLLC to another person are treated as if the realty were transferred from the single member to the other person if the SMLLC is ignored for all tax purposes under the provisions of Code Section 12-2-25(B). As such, the application will depend on the facts and circumstances of the transfer and on whether the single member selling the interest is an individual, partnership, LLC, trust or corporation and whether the person purchasing the interest, the new single member, is an individual, partnership, LLC, trust or corporation.

Deeds to and from Corporations:

24. Are deeds that transfer realty from a stockholder to the corporation subject to the deed recording fee?

Deeds that transfer realty from a stockholder to the corporation are subject to the deed recording fee based on the fair market value of the realty, except for the following deeds:

(a) a transfer from a stockholder to the corporation if no consideration is paid for the transfer other than stock in the corporation or an increase in value in the stockholder's stock in the corporation (12-24-40(8)),

(b) a transfer in which the realty is subject to a mortgage and the corporation receiving the realty is the mortgagee and the transfer constitutes a deed in lieu of foreclosure executed by the stockholder that is the mortgagor or a deed executed pursuant to a foreclosure proceeding (12-24-40(13)) (see questions concerning foreclosure proceedings),

(c) a transfer in order to partition realty owned jointly by the stockholder and the corporation of which he is a stockholder, as long as no consideration is paid for the transfer other than the interests in the realty that are exchanged in order to effect the partition (12-24-40(5)), and

(d) a transfer that is otherwise exempt under Code Section 12-24-40.

25. Are deeds that transfer realty from the corporation to one of the stockholders subject to the deed recording fee?

Deeds that transfer realty from the corporation to one of the stockholders, including deeds transferring realty to the stockholder upon dissolution of the corporation, are subject to the deed recording fee under Code Section 12-24-40(8) except for the following deeds:

(a) a transfer in order to partition realty owned jointly by the stockholder and the corporation of which he is a stockholder, as long as no consideration is paid for the transfer other than the interests in the realty that are exchanged in order to effect the partition (12-24-40(5)),

(b) a transfer in which the realty is subject to a mortgage and the stockholder receiving the realty is the mortgagee and the transfer constitutes a deed in lieu of foreclosure executed by the corporation that is the mortgagor or a deed executed pursuant to a foreclosure proceeding (12-24-40(13)) (see questions concerning foreclosure proceedings), and

(c) a transfer otherwise exempt under the provisions of Code Section 12-24-40.

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26. Are deeds that transfer realty from a non-stockholder to a corporation, or from a corporation to a non-stockholder, subject to the deed recording fee?

Deeds that transfer realty from a non-stockholder to a corporation are subject to the deed recording fee if the consideration paid or to be paid is more than \$100.00 and the transfer is not otherwise exempt under Code Section 12-24-40.

If a consideration of \$100.00 or less is paid or will be paid or the transfer is otherwise exempt under Code Section 12-24-40, then the deed transferring realty from a non-stockholder to the corporation is exempt from the deed recording fee.

27. If Corporation A and Corporation B have the same stockholders but neither corporation is a stockholder in the other, is a deed that transfers realty from Corporation A to Corporation B subject to the deed recording fee?

If Corporation A and Corporation B have the same stockholders but neither corporation is a stockholder in the other, then a deed that transfers realty from Corporation A to Corporation B is subject to the deed recording fee if the consideration paid or to be paid is more than \$100.00 and the transfer is not otherwise exempt under Code Section 12-24-40.

If a consideration of \$100.00 or less is paid or will be paid or the transfer is otherwise exempt under Code Section 12-24-40, then the deed transferring realty from Corporation A to Corporation B is exempt from the deed recording fee.

Master-in-Equity Deeds:

28. Are deeds that transfer realty from a Master-in-Equity to an individual or business subject to the deed recording fee?

Deeds that transfer realty from a Master-in-Equity to an individual or business are subject to the deed recording fee, with the grantee liable for the fee under the provisions of Code Section 12-24-20(B), unless the transfer is otherwise exempt under Code Section 12-24-40.

Note: Since the liability for the deed recording fee has shifted to the grantee in the case of a Master-in-Equity deed, the deed may be exempt if the grantee is otherwise exempted by law. For example, the following deeds are exempt from the deed recording fee when the grantor is a Master-in-Equity:

Grantee	Reason for Exemption
Federal, State or Local Government	12-24-40(2)
Federal Credit Union	12-24-40(2)
Government National Mortgage Association	12-24-40(2)
Farm Credit Bank	12-24-40(2)
Production Credit Association	12-24-40(2)
Bank for Cooperatives	12-24-40(2)
Federal Land Bank Association	12-24-40(2)
U.S. Veterans Administration	12-24-40(2)
Federal National Mortgage Association	12-24-40(3), 12 USCA 1717, and 12 USCA 1723a
Federal Home Loan Mortgage Corporation	12-24-40(3) and 12 USCA 1452

Note: By statute or case law, Federal Credit Unions, the Government National Mortgage Association, Farm Credit Banks, Production Credit Associations, Banks for Cooperatives, and Federal Land Bank Associations are considered instrumentalities of the federal government.

The Federal National Mortgage Association (“Fannie Mae”) and the Federal Home Loan Mortgage Corporation (“Freddie Mac”) are not instrumentalities of the federal government, but have been granted exemption from most state and local taxes when the liability for the tax falls upon them. Since the liability for the fee transfers to the grantee in the case of a deed from a Master-in-Equity to Fannie Mae or Freddie Mac, the transfer is exempt from the deed recording fee pursuant to federal law.

Foreclosure Deeds:

29. Are deeds that transfer realty, subject to a mortgage, from the mortgagor to the mortgagee subject to the deed recording fee?

Deeds that transfer realty, subject to a mortgage, from the mortgagor to the mortgagee are exempt from the deed recording fee under Code Section 12-24-40(13) if the transfer is by a deed in lieu of foreclosure executed by the mortgagor.

Deeds that transfer realty from the mortgagor to the mortgagee for cancellation or forgiveness of the mortgage are subject to the deed recording fee and do not come within the exemption under Code Section 12-24-40(13) unless the books and records of the parties indicate that the transfer was made in lieu of foreclosure. If the Department determines after the deed is recorded that the transfer was not in lieu of foreclosure, the Department will assess the appropriate deed recording fee, penalty and interest.

30. Are deeds that transfer realty, subject to a mortgage, to the mortgagee pursuant to a foreclosure proceeding subject to the deed recording fee?

Deeds that transfer realty, subject to a mortgage, to the mortgagee pursuant to a foreclosure proceeding are exempt from the deed recording fee under Code Section 12-24-40(13).

31. Are deeds that transfer realty, subject to a mortgage, to the assignee of the mortgagee pursuant to a foreclosure proceeding subject to the deed recording fee?

Since the assignee was not the mortgagee of record at the time of the sale, the provisions of Code Section 12-24-40(13) are not applicable.

However, if the assignee is the federal government, or the deed is a Master-in-Equity deed and the assignee is the Federal National Mortgage Association or the Federal Home Loan Mortgage, the deed that transfers the realty, subject to a mortgage, to the assignee of the mortgagee pursuant to a foreclosure proceeding is not subject to the deed recording fee.

Chapter 7 Bankruptcy Deeds:

32. Are deeds that transfer realty under a Chapter 7 bankruptcy subject to the deed recording fee?

Deeds that transfer realty under a Chapter 7 bankruptcy to a person who is not a stockholder, partner, or owner of the business are subject to the deed recording fee if a consideration of more than \$100.00 is paid or will be paid and the transfer is not otherwise exempt under Code Section 12-24-40.

Deeds that transfer realty under a Chapter 7 bankruptcy to a person who is a stockholder, partner, or owner of the business are subject to the deed recording fee based on the fair market value of the realty unless the transfer is otherwise exempt under Code Section 12-24-40.

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### Chapter 11 Bankruptcy Deeds:

33. Are deeds that transfer realty under a Chapter 11 bankruptcy subject to the deed recording fee?

Deeds that transfer realty under a Chapter 11 bankruptcy are exempt from the deed recording fee under Code Section 12-24-40(3) and 11 USCA Section 1146 if the transfer is under a plan confirmed under 11 USCA Section 1129. If the transfer is not under a plan confirmed under 11 USCA Section 1129, then the deed transferring the realty is subject to the deed recording fee if consideration of more than \$100.00 is paid for the transfer and the transfer is not otherwise exempt under Code Section 12-24-40.

### Chapter 12 Bankruptcy Deeds:

34. Are deeds that transfer realty under a Chapter 12 bankruptcy subject to the deed recording fee?

Deeds that transfer realty under a Chapter 12 bankruptcy are exempt from the deed recording fee under Code Section 12-24-40(3) and 11 USCA Section 1231 if the transfer is under a plan confirmed under 11 USCA Section 1225. If the transfer is not under a plan confirmed under 11 USCA Section 1225, then the deed transferring the realty is subject to the deed recording fee if consideration of more than \$100.00 is paid for the transfer and the transfer is not otherwise exempt under Code Section 12-24-40.

### Chapter 13 Bankruptcy Deeds:

35. Are deeds that transfer realty under a Chapter 13 bankruptcy subject to the deed recording fee?

Deeds that transfer realty under a Chapter 13 bankruptcy to a person who is not a stockholder, partner, or owner of the business are subject to the deed recording fee if a consideration of more than \$100.00 is paid or will be paid and the transfer is not otherwise exempt under Code Section 12-24-40.

Deeds that transfer realty under a Chapter 13 bankruptcy to a person who is a stockholder, partner, or owner of the business are subject to the deed recording fee based on the fair market value of the realty unless the transfer is otherwise exempt under Code Section 12-24-40.

### State and Local Government Deeds:

36. Are deeds that transfer realty to the State, or to a political subdivision of the State (e.g., counties, cities, school districts), subject to the deed recording fee?

Deeds that transfer realty to the State, or to a political subdivision of the State (e.g., counties, cities, school districts), are exempt from the deed recording fee under Code Section 12-24-40(2).

37. Are deeds that transfer realty from the State, or from a political subdivision of the State (e.g., counties, cities, school districts), to a non-governmental entity subject to the deed recording fee?

Deeds that transfer realty from the State, or from a political subdivision of the State (e.g., counties, cities, school districts), to a non-governmental entity are subject to the deed recording fee if the consideration paid or to be paid is more than \$100.00 and the transfer is not otherwise exempt under Code Section 12-24-40.

Note: Since under Code Section 12-24-20(B) the liability for the deed recording fee has shifted to the grantee in the case of a deed from the State, or from a political subdivision of the State (e.g., counties, cities, school districts), to a non-governmental entity, the deed may be exempt if the grantee is otherwise exempted by law.

38. Are deeds that transfer realty from the State, or from a political subdivision of the State (e.g., counties, cities, school districts), to another governmental entity subject to the deed recording fee?

Deeds that transfer realty from the State, or from a political subdivision of the State (e.g., counties, cities, school districts), to another governmental entity are exempt from the deed recording fee under Code Section 12-24-40(2).

Federal Government Deeds:

39. Are deeds that transfer realty to the federal government subject to the deed recording fee?

Deeds that transfer realty to the federal government are exempt from the deed recording fee under Code Section 12-24-40(2).

40. Are deeds that transfer realty from the federal government to a non-governmental entity subject to the deed recording fee?

Deeds that transfer realty from the federal government to a non-governmental entity are subject to the deed recording fee if the consideration paid or to be paid is more than \$100.00 and the transfer is not otherwise exempt under Code Section 12-24-40.

Note: Since under Code Section 12-24-20(B) the liability for the deed recording fee has shifted to the grantee in the case of a deed from the federal government, the deed may be exempt if the grantee is otherwise exempted by law.

Federal Credit Union Deeds:

41. Are deeds that transfer realty to a federal credit union subject to the deed recording fee?

Deeds that transfer realty to a federal credit union are exempt from the deed recording fee under Code Section 12-24-40(2) since federal credit unions are considered instrumentalities of the federal government. See 1986 Op. Atty. Gen. No. 86-72, and a second South Carolina Attorney General Opinion dated March 26, 1991, which both concluded that federally chartered credit unions are instrumentalities of the federal government.

42. Are deeds that transfer realty from the federal credit union to a non-governmental entity subject to the deed recording fee?

Deeds that transfer realty from a federal credit union to a non-governmental entity are subject to the deed recording fee if the consideration paid or to be paid is more than \$100.00 and the transfer is not otherwise exempt under Code Section 12-24-40.

Note: Since under Code Section 12-24-20(B) the liability for the deed recording fee has shifted to the grantee in the case of a deed from the federal government, the deed may be exempt if the grantee is otherwise exempted by law.

Government National Mortgage Association Deeds:

43. Are deeds that transfer realty to the Government National Mortgage Association subject to the deed recording fee?

Deeds that transfer realty to the Government National Mortgage Association are exempt from the deed recording fee under Code Section 12-24-40(2) since the Government National Mortgage Association is considered an instrumentality of the federal government pursuant to 12 USCA 1717 and 12 USCA 1723a.

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44. Are deeds that transfer realty from the Government National Mortgage Association to a non-governmental entity subject to the deed recording fee?

Deeds that transfer realty from the Government National Mortgage Association to a non-governmental entity are subject to the deed recording fee if the consideration paid or to be paid is more than \$100.00 and the transfer is not otherwise exempt under Code Section 12-24-40.

Note: Since under Code Section 12-24-20(B) the liability for the deed recording fee has shifted to the grantee in the case of a deed from the federal government, the deed may be exempt if the grantee is otherwise exempted by law.

Farm Credit Bank Deeds:

45. Are deeds that transfer realty to a Farm Credit Bank subject to the deed recording fee?

Deeds that transfer realty to a Farm Credit Bank are exempt from the deed recording fee under Code Section 12-24-40(2) since a Farm Credit Bank is considered an instrumentality of the federal government pursuant to 12 USCA 2011 and 12 USCA 2023.

46. Are deeds that transfer realty from a Farm Credit Bank to a non-governmental entity subject to the deed recording fee?

Deeds that transfer realty from a Farm Credit Bank to a non-governmental entity are subject to the deed recording fee if the consideration paid or to be paid is more than \$100.00 and the transfer is not otherwise exempt under Code Section 12-24-40.

Note: Since under Code Section 12-24-20(B) the liability for the deed recording fee has shifted to the grantee in the case of a deed from the federal government, the deed may be exempt if the grantee is otherwise exempted by law.

Production Credit Association Deeds:

47. Are deeds that transfer realty to a Production Credit Association subject to the deed recording fee?

Deeds that transfer realty to a Production Credit Association are exempt from the deed recording fee under Code Section 12-24-40(2) since a Production Credit Association is considered an instrumentality of the federal government pursuant to 12 USCA 2071 and 12 USCA 2077.

48. Are deeds that transfer realty from a Production Credit Association to a non-governmental entity subject to the deed recording fee?

Deeds that transfer realty from a Production Credit Association to a non-governmental entity are subject to the deed recording fee if the consideration paid or to be paid is more than \$100.00 and the transfer is not otherwise exempt under Code Section 12-24-40.

Note: Since under Code Section 12-24-20(B) the liability for the deed recording fee has shifted to the grantee in the case of a deed from the federal government, the deed may be exempt if the grantee is otherwise exempted by law.

Federal Land Bank Association Deeds:

49. Are deeds that transfer realty to a Federal Land Bank Association subject to the deed recording fee?

Deeds that transfer realty to a Federal Land Bank Association are exempt from the deed recording fee under Code Section 12-24-40(2) since a Federal Land Bank Association is considered an instrumentality of the federal government pursuant to 12 USCA 2091 and 12 USCA 2098.

50. Are deeds that transfer realty from a Federal Land Bank Association to a non-governmental entity subject to the deed recording fee?

Deeds that transfer realty from a Federal Land Bank Association to a non-governmental entity are subject to the deed recording fee if the consideration paid or to be paid is more than \$100.00 and the transfer is not otherwise exempt under Code Section 12-24-40.

Note: Since under Code Section 12-24-20(B) the liability for the deed recording fee has shifted to the grantee in the case of a deed from the federal government, the deed may be exempt if the grantee is otherwise exempted by law.

Federal National Mortgage Association (“Fannie Mae”) Deeds:

51. Are deeds that transfer realty to the Federal National Mortgage Association (“Fannie Mae”) subject to the deed recording fee?

Deeds that transfer realty to the Federal National Mortgage Association (“Fannie Mae”) are subject to the deed recording fee if the consideration paid or to be paid is more than \$100.00 and the transfer is not otherwise exempt under Code Section 12-24-40.

52. Are deeds that transfer realty from the Federal National Mortgage Association (“Fannie Mae”) to a non-governmental entity subject to the deed recording fee?

Deeds that transfer realty from the Federal National Mortgage Association (“Fannie Mae”) to a non-governmental entity are exempt from the deed recording fee under Code Section 12-24-40(3), 12 USCA 1717, and 12 USCA 1723a.

Note: The Federal National Mortgage Association is not a federal instrumentality

Federal Home Loan Mortgage Corporation (“Freddie Mac”) Deeds:

53. Are deeds that transfer realty to the Federal Home Loan Mortgage Corporation (“Freddie Mac”) subject to the deed recording fee?

Deeds that transfer realty to the Federal Home Loan Mortgage Corporation (“Freddie Mac”) are subject to the deed recording fee if the consideration paid or to be paid is more than \$100.00 and the transfer is not otherwise exempt under Code Section 12-24-40.

54. Are deeds that transfer realty from the Federal Home Loan Mortgage Corporation (“Freddie Mac”) to a non-governmental entity subject to the deed recording fee?

Deeds that transfer realty from the Federal Home Loan Mortgage Corporation (“Freddie Mac”) to a non-governmental entity are exempt from the deed recording fee under Code Section 12-24-40(3) and 12 USCA 1452.

Note: The Federal Home Loan Mortgage Corporation (“Freddie Mac”) is not a federal instrumentality.

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### Timeshare Deeds:

55. Are deeds that transfer a one-week interest in a timeshare unit under a vacation time sharing ownership plan (not a “vacation time sharing lease plan”) as defined in Chapter 32 of Title 27 subject to the deed recording fee?

Deeds that transfer a one-week interest in a timeshare unit under a vacation time sharing ownership plan as defined in Chapter 32 of Title 27 are subject to the deed recording fee if the consideration paid or to be paid is more than \$100.00 and the transfer is not otherwise exempt under Code Section 12-24-40.

56. Are deeds that transfer a one-week interest in a timeshare unit under a vacation time sharing ownership plan (not a “vacation time sharing lease plan”) as defined in Chapter 32 of Title 27 to the original seller, or to the company managing the timeshare development, in exchange for forgiving any unpaid fees subject to the deed recording fee?

Deeds that transfer a one-week interest in a timeshare unit under a vacation time sharing ownership plan as defined in Chapter 32 of Title 27 to the original seller, or to the company managing the timeshare development, in exchange for forgiving any unpaid fees are subject to the deed recording fee if the consideration paid or to be paid (the amount of the unpaid fees forgiven) is more than \$100.00 and the transfer is not otherwise exempt under Code Section 12-24-40.

### Manufactured Homes:

57. Are deeds that transfer land and the manufactured home anchored to the land subject to the deed recording fee based on the full consideration paid or may the value of the home be deducted in calculating the deed recording fee?

Deeds that transfer land and the manufactured home anchored to the land are subject to the deed recording fee based on the full consideration paid. The manufactured home anchored to the land is realty and its value may not be deducted from the consideration paid in calculating the deed recording fee.

Note: “A deduction from value is allowed for the amount of any lien or encumbrance existing on the land, tenement, or realty before the transfer and remaining on the land, tenement, or realty after the transfer.” See Code Section 12-24-30(B).

### Timber Deeds:

58. Are “timber deeds” subject to the deed recording fee?

Deeds that constitute a contract for the sale of timber to be cut are exempt from the deed recording fee under Code Section 12-24-40(7).

Deeds transferring the timber and the underlying land are subject to the deed recording fee based on the full “value” as defined in Code Section 12-24-30, unless otherwise exempt under the statute.

### Mineral Rights:

59. Is the recording of a deed that conveys mineral rights (oil, gas, sand, etc.) to another person subject to the deed recording fee?

A deed that conveys mineral rights (oil, gas, sand, etc.) to another person where the minerals are to be severed by the grantee (buyer) is a deed that conveys realty. The recording of this deed is subject to the deed recording



fee, unless otherwise exempt under the law, based on the value of the mineral rights as determined by Code Section 12-24-30.

**Easements and Rights-of-Way:**

60. Is the recording of a deed that conveys an easement or a right of way to another person subject to the deed recording fee?

The recording of a deed that conveys an easement or a right of way to another person is subject to the deed recording fee, unless otherwise exempt under the law, based on the value of the easement or right of way as determined by Code Section 12-24-30.

Note: In addition to the discussion portion of this regulation, see Questions #1 through #4 for a discussion of “value” as determined by Code Section 12-24-30.

**Deeds to Obtain Construction Loans:**

To best address Questions #61 and #62 (below) concerning deeds to obtain construction loans, the following example will be used:

Mr. X owns realty with a fair market value of \$22,000.00 and wants to construct a home on that realty. Mr. X hires ABC Home Contractors (“ABC”) to build a home on the realty for \$250,000.00.

In order to obtain the construction loan to build the home, the financial institution is requiring that title to the realty on which the home is to be constructed be in the name of ABC. Mr. X transfers the realty to ABC under an agreement that ABC will construct the home (per specifications agreed upon by both parties) and then transfer the realty back to Mr. X upon payment of the \$250,000.00.

Note: For purposes of this example, neither transfer involves a lien or encumbrance that existed on the realty before the transfer and remained on the realty after the transfer. In addition, neither transfer in this example involves (1) a transaction between a corporation, a partnership, or other entity and its stockholder, partner, or owner, or (2) a transaction involving a transfer of realty to a trust or as a transfer of realty as a distribution to a trust beneficiary.

61. Is the deed that transfers realty from Mr. X to ABC, as discussed in the facts above, so that ABC may obtain a construction loan to build a home for the Mr. X, subject to the deed recording fee?

The deed that transfers realty from Mr. X to ABC, so that ABC may obtain a construction loan to build a home for Mr. X, is subject to the deed recording fee based on \$22,000.00 - the fair market value of the realty.

Note: If the fair market value of the realty for property tax purposes is less than \$22,000.00, Code Section 12-24-30(C) allows the taxpayer to use that figure in computing the deed recording fee due.

62. Is the deed that transfers the same realty, as discussed in the facts above, from ABC back to Mr. X upon completion of the building subject to the deed recording fee?

The deed that transfers the same realty from ABC back to Mr. X upon completion of the home is subject to the deed recording fee based on \$250,000.00 - the money paid or to be paid pursuant to the contract for constructing the home.

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63. Are deeds that transfer realty as part of an income tax deferred exchange under Internal Revenue Code Section 1031 subject to the deed recording fee?

The exchange of realty pursuant Section 1031 of the Internal Revenue Code constitutes a transfer of realty for a consideration subject to the fee unless otherwise exempted under Code Section 12-24-40.

### 117-1350.3 Remittance of Fee in the County in Which the Realty is Located

The fee must be remitted to the clerk of court or the register of deeds in the county in which the realty is located and recorded.

### 117-1350.4 Remittance of Fee for Realty Located in More Than One County

If the realty is located in more than one county, the person having the deed recorded in a county must state by affidavit what portion of the value of the realty is in that county, and payment of the fee must be made based on the proportionate value of the realty located in that county.

### 117-1350.5 Notation on the Instrument

Prior to recording a deed subject to the fee, the county must collect the fee and place a notation on the deed containing the following (1) the date the deed was filed; (2) the fee collected; and (3) any other information required by the county. If the deed qualifies for an exemption, the word "EXEMPT" should be placed in the notation.

### 117-1350.6 Affidavit of Value

An affidavit is to be filed with a deed, and that affidavit must show the value of the realty. For deeds exempt under the law, the value will not be required to be stated on the affidavit. Such affidavits must state the reason why the deed is exempt from the fee. The affidavit required by this section must be signed by a responsible person connected with the transaction and the affidavit must state that connection. Secretaries, paralegals, runners, and other administrative personnel do not qualify as a "responsible person connected with the transaction" and, therefore, may not sign the affidavit.

The clerk of court or register of deeds shall file these affidavits in his office.

The clerk of court or register of deeds may, at his discretion, waive the affidavit requirement. In addition, "[a]n affidavit is not required for an instrument or deed of distribution assigning, transferring, or releasing real property to the distributee of an estate pursuant to Section 62-3-907 as evidence of the distributee's title."

A person required to furnish the affidavit who wilfully furnishes a false or fraudulent affidavit is guilty of a misdemeanor and, upon conviction, must be fined not more than one thousand dollars or imprisoned not more than one year, or both.

### 117-1350.7 Assumption of a Mortgage in the Conveyance of Real Property

To set forth the true, full, and complete consideration, paid or to be paid, where any mortgage is assumed in the conveyance of real property, it is necessary for the deed or affidavit to state the Number of the Real Estate Mortgage Book and the Page Number, and the remaining balance assumed.

### **Fiscal Impact Statement:**

There will be no impact on state or local political subdivisions' expenditures in complying with this proposed legislation. There will be a minimal increase to general fund collections.

**Statement of Rationale:**

The purpose of this proposal is to amend SC Regulation 117-1350 to ensure that the present regulation concerning the deed recording fee has information concerning common real estate transactions and deed recording fee issues.

The proposal to amend this regulation is also reasonable in that it represents longstanding Department policy that is consistent with the statute.

Document No. 4004  
**DEPARTMENT OF REVENUE**  
 CHAPTER 117  
 Statutory Authority: 1976 Code Section 12-4-320

117-314.11. Federal Government Construction Contracts

**Synopsis:**

The South Carolina Department of Revenue is considering adding SC Regulation 117-314.11 concerning the application of the sales and use tax exemption in Code Section 12-36-2120(29) to incorporate longstanding Department of Revenue policy concerning federal government construction contracts into SC Regulation 117-314. This policy is presently set forth in an advisory opinion issued by the Department – SC Revenue Ruling #04-9.

**Instruction:**

Add SC Regulation 117-314.11 concerning the application of the sales and use tax exemption in Code Section 12-36-2120(29) to incorporate longstanding Department of Revenue policy concerning federal government construction contracts in SC Regulation 117-314.

**Text:**

117-314.11 Federal Government Construction Contracts

Sales to, or purchases by, a construction contractor of tangible personal property for use in a federal government construction project in South Carolina for which the contractor has a written contract with the federal government are not subject to the sales and use tax under Code Section 12-36-2120(29) if the contract necessitating the purchase provides that title and possession of the property is to transfer from the contractor to the federal government at the time of purchase or after the time of purchase and such property actually transfer to the federal government in accordance with the contract or the property becomes part of real or personal property owned by the federal government or is to transfer to the federal government.

The purpose of this regulation is to address the application of Code Section 12-36-2120(29) to sales to, or purchases by, a construction subcontractor of tangible personal property for use in a federal government construction project in South Carolina for which the subcontractor has a written contract with a general contractor who has a written contract for the project with the federal government.

For purposes of this regulation, the following example and information will be used to illustrate the application of the exemption:

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The federal government is constructing a building on a military base located in South Carolina. After following its contracting procedures, the federal government has entered into a written contract with a general construction contractor (“Contractor A”) to construct the building.

Contractor A has hired and entered into a written contract with a construction subcontractor (“Subcontractor B”) to construct a certain portion of the building.

Subcontractor B in turn hires and enters into a written contract with a construction subcontractor (“Subcontractor C”) to construct a certain portion of the building under its contract.

Contractor A, Subcontractor B, and Subcontractor C each purchase the material necessary to complete the project from various suppliers.

Based on the example and information, the exemption in Code Section 12-36-2120(29) for federal government contracts applies as follows:

1. Sales to, or purchases by, Contractor A of tangible personal property for use in a federal government construction project in South Carolina as described in the facts are exempt from the sales and use tax under Code Section 12-36-2120(29) if the written contract necessitating the purchase provides that title and possession of the property is to transfer from Contractor A to the federal government at the time of purchase or after the time of purchase and such property actually transfers to the federal government in accordance with the contract or the property becomes part of real or personal property owned by the federal government, or is to transfer to the federal government.

2. Sales to, or purchases by, Subcontractor B of tangible personal property for use in a federal government construction project in South Carolina as described in the facts are subject to the sales and use tax since Subcontractor B does not have a written contract with the federal government.

However, if Subcontractor B is an agent for the Contractor A, then sales to, or purchases by, Subcontractor B of tangible personal property for use in a federal government construction project in South Carolina as described in the facts are not subject to the sales and use tax if all other provisions of the exemption found in Code Section 12-36-2120(29) are met and all books and records support the existence of an agency relationship. (See information below concerning an agency relationship.)

3. Sales to, or purchases by, Subcontractor C of tangible personal property for use in a federal government construction project in South Carolina as described in the facts are subject to the sales and use tax since Subcontractor C does not have a written contract with the federal government.

However, if Subcontractor C is a subagent for Subcontractor B and Contractor A has specifically granted Subcontractor B the authority to appoint a subagent that can bind Contractor A, then sales to, or purchases by, Subcontractor C of tangible personal property for use in a federal government construction project in South Carolina as described in the facts are not subject to the sales and use tax if all other provision of the exemption found in Code Section 12-36-2120(29) are met and all books and records support the existence of an agency relationship. (See information below concerning an agency relationship.)

The Department will recognize the existence of an agency relationship with respect to the exemption in Code Section 12-36-2120(29), such a determination must be made a case-by-case basis and that if it is determined an agency relationship does not exist the Department will assess the applicable party (depending on the facts) under the sales and use tax law (supplier or contractor or subcontractor) for the tax due. (Note: Regardless of the facts and circumstances, the agency must be in writing.) However, the Department has established the following “safe harbor” for which it will recognize an agency relationship with respect to the above facts and the exemption in Code Section 12-36-2120(29):

1. Purchases by Subcontractor B: Contractor A has appointed, in writing, Subcontractor B as its agent when purchasing tangible personal property for the federal government contract and that as a result of this agency relationship Contractor A is liable for payment of such purchases if Subcontractor B fails to pay the supplier and is also liable for the payment of any sales and use tax for any property that was purchased by Subcontractor B in its capacity as agent and that does not qualify for the exemption in Code Section 12-36-2120(29) if Subcontractor B fails to pay the tax.

Purchases by Subcontractor C: Subcontractor B has appointed, in writing, Subcontractor C as its subagent when purchasing tangible personal property for the federal government contract and Contractor A has specifically granted Subcontractor B the authority to appoint a subagent that can bind Contractor A and that as a result of this subagency relationship Contractor A is liable for payment of such purchases if Subcontractor C fails to pay the supplier and is also liable for the payment of any sales and use tax for any property that was purchased by Subcontractor C in its capacity as subagent and that does not qualify for the exemption in Code Section 12-36-2120(29) if Subcontractors B or C fail to pay the tax.

2. The purchase order of Subcontractor B or Subcontractor C submitted to the supplier must clearly state that Subcontractor B or Subcontractor C is the agent of Contractor A in purchasing the property.

3. Contractor A has applied for and received an exemption certificate from the Department for purposes of the exemption in Code Section 12-36-2120(29). Copies of the application for the exemption, Form ST-10G, can be found on the Department's website at [www.sctax.org](http://www.sctax.org). The federal contractor's exemption certificate that will be issued by the Department will be Form ST-404.

4. Contractor A must provide a copy of the exemption certificate to Subcontractor B and must have completed Section C of the copy indicating that Subcontractor B and Subcontractor C are its agents in purchasing tangible personal property for the federal construction project. Subcontractor B will in turn provide a copy to its subagent, Subcontractor C.

Note: Only Contractor A can complete Section C of the exemption certificate. Therefore, when Contractor A has specifically granted Subcontractor B the authority to appoint a subagent that can bind Contractor A, Subcontractor B will be required to inform Contractor A, who then must list Subcontractor C as its agent on a copy of the certificate.

5. Subcontractor B or Subcontractor C must provide a copy of the certificate to the supplier when purchasing tangible personal property exempt under Code Section 12-36-2120(29).

6. All books and records support the existence of an agency relationship.

Note: Sale or purchases of tangible personal property used or consumed by the purchaser (contractor or subcontractor) are subject to the tax. The exemption in Code Section 12-36-2120(29) only applies property where title and possession of the property transfers from the contractor or subcontractor to the federal government at the time of purchase or after the time of purchase or the property purchased becomes part of real or personal property owned by the federal government.

**Fiscal Impact Statement:**

There will be no impact on state or local political subdivisions expenditures in complying with this proposed legislation. There will be a minimal increase to general fund collections.

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### **Statement of Rationale:**

The proposal to add SC Regulation 117-314.11 is needed to ensure that taxpayers understand how the exemption in Code Section 12-36-2120(29) applies to the purchase of tangible personal property by a construction subcontractor for use in a federal government construction project in South Carolina for which the subcontractor has a written contract with a general contractor who has a written contract for the project with the federal government

The proposal to add this regulation is also reasonable in that it represents longstanding Department policy.