

# UNITED STATES NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

September 21, 2020

Mr. Steven A. Harrison, Director Office of Radiological Health Virginia Department of Health James Madison Building 109 Governor Street, Room 736 Richmond, VA 23219

Dear Mr. Harrison:

We have reviewed the proposed revisions to the Virginia regulations 12VAC5 – 481 received by our office on August 11, 2020. These regulations were reviewed by comparison to the equivalent U.S. Nuclear Regulatory Commission (NRC) rules and Regulation Amendment Tracking System Identification Numbers (RATS IDs) 2018-1, 2018-2, 2018-3, 2019-1, 2019-2, 2020-1, and 2020-2 as identified in the enclosed State Regulation Status (SRS) Data Sheet. We discussed our review of the regulations with Asfaw Fenta on September 10, 2020.

As a result of our review, we have 21 comments that have been identified in the enclosure. Please note that we have limited our review to regulations required for compatibility and/or health and safety. Under our current procedure, a finding that the Virginia regulations meet the compatibility and health and safety categories of the equivalent NRC regulation may only be made based on a review of the final Virginia regulations. However, we have determined that if your proposed regulations were adopted, incorporating our comments and without other significant change, they would meet the compatibility and health and safety categories established in the Office of Nuclear Material Safety and Safeguards (NMSS) Procedure SA-200, "Compatibility Categories and Health and Safety Identification for NRC Regulations and Other Program Elements."

We request that when the proposed regulations are adopted and published as final regulations, a copy of the "as published" regulations be provided to us for review. As requested in NMSS Procedure SA-201, "Review of State Regulatory Requirements," please highlight the final changes, and provide a copy to Division of Materials Safety, Security, State, and Tribal Programs, NMSS.

The SRS Data Sheet summarizes our knowledge of the status of other Virginia regulations, as indicated. Please let us know if you note any inaccuracies, or have any comments on the information contained in the SRS Data Sheet. This letter, including the SRS Data Sheet, is posted on the NMSS State Communication Portal: https://scp.nrc.gov/rulemaking.html.

S. Harrison -2-

If you have any questions regarding the comments, the compatibility and health and safety categories, or any of the NRC regulations used in the review, please contact Michelle Beardsley, State Regulation Review Coordinator, at (301) 415-0275 (Michelle.Beardsley@nrc.gov) or Monica Ford at (610) 337-5214 (Monica.Ford@nrc.gov).

Sincerely,

Lizette Roldan-

Digitally signed by Lizette Roldan-Otero

Otero Date: 2020.09.21 13:51:43 -05'00'

Lizette Roldan-Otero, Ph.D., Acting Branch Chief State Agreement and Liaison Programs Branch Division of Materials Safety, Security, State and Tribal Programs Office of Nuclear Material Safety and Safeguards

#### Enclosures:

- 1. Compatibility Comments
- 2. Virginia SRS Data Sheet

## **COMPATIBILITY COMMENTS ON VIRGINIA PROPOSED REGULATIONS**

STA	TE SECTION	NRC SECTION	RATS ID	CATEGORY	SUBJECT and COMMENTS
1	12VAC5- 481-440.I.6	30.34(g)	2018-1	В	Terms and conditions of licenses  Virginia lists an incorrect citation to its equivalent regulation to 10 CFR 35.3204 in 12VAC 5-481-440.I.6.  Virginia needs to change the added language to read "The licensee shall report the results of any test that exceeds the permissible
					concentration listed in 12VAC5-481-1930 A at the time of the generator elution, in accordance with 12VAC5-481-2080 D."  Virginia needs to make the above change in order to meet the compatibility category B designation assigned to 10 CFR 30.34(g).
2	12VAC5- 481-10	35.2	2018-1	В	Definition: Ophthalmic physicist  Virginia cites the wrong regulation in the definition of Ophthalmic Physicist. Virginia needs to change the definition to read: "Ophthalmic physicist" means an individual who (1) meets the requirements of 12VAC5-481-2016.A.2. and 12VAC5-481-1790; and"  Virginia needs to make the above
					change in order to meet the compatibility category B designation assigned to 10 CFR 35.2 Definition: Ophthalmic physicist.
3	12VAC5- 481-1730	35.41	2018-1	H&S	Procedures for administrations requiring a written directive  Virginia has incorrect references in 12VAC5-481-1730.4 and 5. Virginia needs to change 481-1730.4 and 481-1730.5 to read as follows: "4. Verifying that all computer-generated

STA	TE SECTION	NRC SECTION	RATS ID	CATEGORY	SUBJECT and COMMENTS
					dose calculations are correctly transferred into the consoles of therapeutic medical units authorized by 12VAC5-481-2020.B and 12VAC5-481-2060; 5. Determining if a medical event, as defined in 12VAC5-481-2080, has occurred; and."  Virginia needs to make the above change in order to meet the compatibility category H&S designation assigned to 10 CFR 35.41.
4	12VAC5- 481-1750	35.50	2018-1	В	Training for Radiation Safety Officer and Associate Radiation Safety Officer  Virginia needs to rewrite 12VAC5- 481-1750.1. to read: "Is certified by a specialty board who has been recognized by the agency, the NRC, or an Agreement State and who meets the requirements of subdivision 4 of this section. The names of board certifications that have been recognized by the NRC or an Agreement State are posted on the NRC's Medical Uses Licensee Toolkit Web page. To have its certification process recognized, a specialty board shall require all candidates for certification to:  (1)(i) Hold a bachelor's or graduate degree from an accredited college or university in physical science or engineering or biological science with a minimum of 20 college credits in physical science; (ii) Have 5 or more years of professional experience in health physics (graduate training may be substituted for no more than 2 years of the required experience) including at least 3 years in applied health physics; and

STA	TE SECTION	NRC SECTION	RATS ID	CATEGORY	SUBJECT and COMMENTS
					changes in order to meet the compatibility category B designation assigned to 10 CFR 35.50.
5	12VAC5- 481-1760	35.51	2018-1	B	Training for an authorized medical physicist  Virginia needs to amend 12VAC5-481-1760.1. to read: "Is certified by a specialty board whose certification process has been recognized by the NRC, the agency or an Agreement State and who meets the requirements of subdivision 4 of this section. The names of board certifications that have been recognized by the NRC or an Agreement State are posted on the NRC's Medical Uses Licensee Toolkit web page. To have its certification process recognized, a specialty board shall require all candidates for certification to:  a. Hold a master's or doctor's degree in physics, medical physics, other physical science, engineering, or applied mathematics from an accredited college or university; b. Have 2 years of full-time practical training and/or supervised experience in medical physics—  (i) Under the supervision of a medical physics by a specialty board whose certification process has been recognized under this section by the agency, the NRC or an Agreement State; or  (ii) In clinical radiation facilities providing high-energy, external beam therapy (photons and electrons with energies greater than or equal to 1 million electron volts) and brachytherapy services under the direction of physicians who meet the requirements in 12VAC5-481-1780, 12VAC5-481-2018, or 12VAC5-481-

STA	TE SECTION	NRC SECTION	RATS ID	CATEGORY	SUBJECT and COMMENTS
					2040; and c. Pass an examination, administered by diplomates of the specialty board, that assesses knowledge and competence in clinical radiation therapy, radiation safety, calibration, quality assurance, and treatment planning for external beam therapy, brachytherapy, and stereotactic radiosurgery; or "  Virginia needs to add "NRC or Agreement State" between "equivalent" and "requirements" in 12VAC5-481-1760.4.  Virginia needs to make the above changes in order to meet the compatibility category B designation
6	12VAC5- 481-1770	35.55	2018-1	В	Training for an authorized nuclear pharmacist  Virginia needs to amend 12VAC5-481-1770.1 to read: "Is certified by a specialty board whose certification process has been recognized by the NRC, the agency or an Agreement State. The names of board certifications that have been recognized by theNRC or an Agreement State are posted on the NRC's Medical Uses Licensee Toolkit web page. To have its certification process recognized, a specialty board shall require all candidates for certification to: a. Have graduated from a pharmacy program accredited by the American Council on Pharmaceutical Education (ACPE) or have passed the Foreign Pharmacy Graduate Examination Committee (FPGEC) examination; b. Hold a current, active license to practice pharmacy; c. Provide evidence of having acquired at least 4000 hours of training/experience in nuclear pharmacy practice. Academic training

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STA	TE SECTION	NRC SECTION	RATSID	CATEGORY	may be substituted for no more than 2000 hours of the required training and experience; and d. Pass an examination in nuclear pharmacy administered by diplomates of the specialty board, that assesses knowledge and competency in procurement, compounding, quality assurance, dispensing, distribution, health and safety, radiation safety, provision of information and consultation, monitoring patient outcomes, research and development; or."  Virginia needs to change 12VAC5-481-1760.3 to read: "Has obtained written attestation, signed by a preceptor ANP, that the individual has satisfactorily completed the requirements in subdivision 2 of this section and is able to independently fulfill the radiation safety-related duties as an authorized nuclear pharmacist."  Virginia needs to make the above changes in order to meet the compatibility category B designation assigned to 10 CFR 35.55.
7	12VAC5- 481-1780	35.57	2018-1	В	Training for experienced radiation Safety Officer, teletherapy or medical physicist, authorized medical physicist, authorized user, nuclear pharmacist, and authorized nuclear pharmacist.  Virginia needs to change 12VAC5-481-1780.A to read: "A. The following applies to individuals with experience as a radiation safety officer (RSO), teletherapy or medical physicist (AMP), authorized medical physicist (AMP), a nuclear pharmacist (ANP), or authorized nuclear pharmacist (ANP):

STATE SECTION	NDC SECTION	DATEID	CATECORY	CUD IECT and COMMENTS
STATE SECTION	NRC SECTION	RATS ID	CATEGORY	SUBJECT and COMMENTS  1. An individual identified on an
				agency, NRC, or agreement
				state license or permit issued
				by an agency, NRC or an
				agreement state broad scope licensee or master material
				license permit or by a master
				material license permittee of
				broad scope as a RSO, a
				teletherapy or medical
				physicist, AMP, a nuclear
				pharmacist, or and ANP on or
				before January 14, 2019
				October 24, 2002, need not
				comply with the training
				requirements of 12VAC5-481-
				1750, 12VAC5-481-1760, or
				12VAC5-481-1770,
				respectively, except the RSO
				and AMP identified in this
				paragraph must meet the
				training requirements in
				12VAC5-481-1750.4 or
				12VAC5-481-1760.3, as
				appropriate, for any material
				or uses for which they were
				not authorized prior to this
				date.
				<ol><li>An individual certified by the</li></ol>
				American Board of Health
				Physics in Comprehensive
				Health Physics; American
				Board of Radiology; <u>American</u>
				Board of Nuclear Medicine;
				American Board of Science in
				Nuclear Medicine; Board of
				Pharmaceutical Specialties in
				Nuclear Pharmacy; American
				Board of Medical Physics in
				radiation oncology physics;
				Royal College of Physicians
				and Surgeons of Canada in
				nuclear medicine; American
				Osteopathic Board of
				Radiology; or American
				Osteopathic Board of Nuclear
				Medicine on or before October
			]	24, 2005, need not comply

СТА	TE SECTION	NRC SECTION	RATS ID	CATEGORY	SUBJECT and COMMENTS
					with the training requirements of 12VAC5-481-1750 to be identified as an RSO or as an Associate RSO on an agency, NRC or another agreement state license or NRC master material permit for those materials and uses that these individuals performed on or before October 24, 2005. Any individual certified by the American Board of Radiology in therapeutic radiological physics, Roentgen ray and gamma ray physics, x-ray and radium physics, or radiological physics, or certified by the American Board of Medical Physics in radiation oncology physics, on or before October 24, 2005, need not comply with the training requirements for an authorized medical physicist described in 12VAC5-481-1760, for those materials and uses that these individuals performed on or before October 24, 2005."  Virginia needs to make the above changes in order to meet the compatibility category B designation assigned to 10 CFR 35.57
8	12VAC5- 481-1910	35.190	2018-1	В	Training for uptake, dilution, and excretion studies.  Virginia needs to amend 12VAC5-481-1910.1 to read: "Who is certified by a medical specialty board whose certification process has been recognized by the NRC, the agency or an Agreement State. The names of board certifications that have been recognized by the NRC or an Agreement State are posted on the NRC's Medical Uses Licensee Toolkit Web page.; To have its certification

STA	TE SECTION	NRC SECTION	RATS ID	CATEGORY	SUBJECT and COMMENTS
					shall require all candidates for certification to: a. Complete 60 hours of training and experience in basic radionuclide handling techniques and radiation safety applicable to the medical use of unsealed byproduct material for uptake, dilution, and excretion studies as described in paragraphs 3.a.(1) through 3.a.(2)(f) of this section; and b. Pass an examination, administered by diplomates of the specialty board, that assesses knowledge and competence in radiation safety, radionuclide handling, and quality control; or "  Virginia needs to amend 12VAC5-481-1940.3.b to read: "Obtained written attestation that the individual has satisfactorily completed the requirements in subdivision 3.a of this section and is able to independently fulfill the radiation safety-related duties as an authorized user for the medical uses authorized under 12VAC5-481-1900."  Virginia needs to make the above changes in order to meet the compatibility category B designation assigned to 10 CFR 35.190.
9	12VAC5- 481-1940	35.290	2018-1	В	Training for imaging and localization studies  Virginia needs to amend 12VAC5-481-1940.1 to read: "Who is certified by a medical specialty board whose certification process has been recognized by the NRC, the agency or an Agreement State. The names of board certifications that have been recognized by the NRC or an Agreement State are posted on the NRC's Medical Uses Licensee Toolkit Web page.; or "

STA	TE SECTION	NRC SECTION	RATS ID	CATEGORY	SUBJECT and COMMENTS
					Virginia needs to amend 12VAC5-481-1940.3.b to read: "Obtained written attestation that the individual has satisfactorily completed the requirements in subdivision 3.a of this section and is able to independently fulfill the radiation safety-related duties as an authorized user for the medical uses authorized under 12VAC5-481-1900 and 12VAC5-481-1920."  Virginia needs to make the above changes in order to meet the compatibility category B designation assigned to 10 CFR 35.290.
10	12VAC5- 481-1980	35.390	2018-1	В	Training for use of unsealed byproduct material for which a written directive is required  Virginia needs to amend 12VAC5-481-1980.1 to read: "Who is certified by a medical specialty board whose certification process has been recognized by the NRC, the agency or an Agreement State and who meets the requirements in subdivisions 2.b(7) and 3. of this section. The names of board certifications that have been recognized by the NRC or an Agreement State are posted on the NRC's Medical Uses Licensee Toolkit Web page.; or "  Virginia needs to amend 12VAC5-481-1980.3. to read: "Who has obtained written attestation that the individual has satisfactorily completed the requirements in subdivision 2.b of this section and is able to independently fulfill the radiation safety-related duties as an authorized user for oral administration of greater than 1.22 gigabecquerels (33 millicuries) of sodium iodide I-131 for

CTA.	TE SECTION	NRC SECTION	RATS ID	CATEGORY	SUBJECT and COMMENTS
JIA.	TE SECTION	NICO SECTION	KATOID	OATEOORI	medical uses authorized under 12VAC5-481-1950."  Virginia needs to make the above changes in order to meet the compatibility category B designation assigned to 10 CFR 35.390.
11	12VAC5- 481-1990	35.392	2018-1	В	Training for the oral administration of sodium iodide I-131 requiring a written directive in quantities less than or equal to 1.22 gigabecquerels (33 millicuries)  Virginia needs to amend 12VAC5-481-1990.1 to read: "Who is certified by a medical specialty board whose certification process includes all of the requirements in subdivision 3 and has been recognized by the NRC, the agency, or an Agreement State. The names of board certifications that have been recognized by the NRC or an Agreement State are posted on the NRC's Medical Uses Licensee Toolkit Web page.; or "  Virginia needs to amend 12VAC5-481-1990.4 to read: "Obtained written attestation that the individual has satisfactorily completed the requirements in subdivision 3 of this section and is able to independently fulfill the radiation safety-related duties as an authorized user for oral administration of less than or equal to 1.22 gigabecquerels (33 millicuries) of sodium iodide I-131 for medical uses authorized under 12VAC5-481-1950."  Virginia needs to make the above changes in order to meet the compatibility category B designation assigned to 10 CFR 35.392.
12	12VAC5- 481-2000	35.394	2018-1	В	Training for the oral administration of sodium iodide I–131 requiring a

STA	TE SECTION	NRC SECTION	RATS ID	CATEGORY	SUBJECT and COMMENTS
SIA	TE SECTION	NRC SECTION	KAISID	CATEGORY	written directive in quantities greater than 1.22 gigabecquerels (33 millicuries)  Virginia needs to amend 12VAC5-481-2000.1 to read: ". Who is certified by a medical specialty board whose certification process includes all of the requirements in subdivision 3 and has been recognized by the NRC, the agency or an Agreement State. The names of board certifications that have been recognized by the NRC or an Agreement State are posted on the NRC's Medical Uses Licensee Toolkit Web page.; or "  Virginia needs to amend 12VAC5-481-2000.3.c to read: "Obtained written attestation that the individual has satisfactorily completed the requirements in subdivision 3 of this section and is able to independently fulfill the radiation safety-related duties as an authorized user for oral administration of greater than 1.22 gigabecquerels (33 millicuries) of sodium iodide I-131 for medical uses authorized under 12VAC5-481-1950."  Virginia needs to make the above changes in order to meet the compatibility category B designation assigned to 10 CFR 35.394.
13	12VAC5- 481-2001	35.396	2018-1	В	Training for the parenteral administration of unsealed byproduct material requiring a written directive  Virginia needs to amend 12VAC5-481-2001.3 to read: "Who is certified by a medical specialty board whose certification process has been recognized by the NRC, the agency, or an Agreement State under 12VAC5-481-2018 or 12VAC5-481-2040, and who meets the

STA	TE SECTION	NRC SECTION	RATS ID	CATEGORY	SUBJECT and COMMENTS
					requirements in subdivision 4 of this section, or."  Virginia needs to amend 12VAC5-481-2001.5 to read: "Obtained a written attestation that the individual has satisfactorily completed the requirements in subdivision 2 or 3;
					and subdivision 4 b of this section or subdivision 4 of this section, and is able to independently fulfill the radiation safety-related duties as an authorized user for the parenteral administration of unsealed byproduct material requiring a written directive. The written attestation shall be obtained from either:."
					Virginia needs to make the above changes in order to meet the compatibility category B designation assigned to 10 CFR 35.396.
14	12VAC5- 481-2018.2	35.490	2018-1	В	Training for use of manual brachytherapy sources
					Virginia needs to change 12VAC5-481-2018.1 to read: "Who is certified by a medical specialty board whose certification process has been recognized by the NRC, the agency, or an Agreement State. The names of board certifications that have been recognized by the NRC or an Agreement State are posted on the NRC's Medical Uses Licensee Toolkit Web page. To have its certification process recognized, a specialty board shall require all candidates for certification to: a. Successfully complete a minimum of 3 years of residency training in a radiation oncology program approved by the Residency Review Committee of the Accreditation Council for Graduate Medical Education or the Royal College of Physicians and Surgeons of Canada or the Committee on Post-

STA	TE SECTION	NRC SECTION	RATS ID	CATEGORY	SUBJECT and COMMENTS
					Graduate Training of the American
					Osteopathic Association; and b. Pass
					an examination, administered by
					diplomates of the specialty board, that
					tests knowledge and competence in
					radiation safety, radionuclide
					handling, treatment planning, quality assurance, and clinical use of manual
					brachytherapy; or."
					Viscinia a sa da ta ab an as 400/405
					Virginia needs to change 12VAC5- 481-2019.3 to read: "Who has
					obtained written attestation that the
					individual has satisfactorily completed
					the requirements in <u>subsection 2</u> and
					has achieved a level of competency
					sufficient"
					Virginia needs to make the above
					changes in order to meet the
					compatibility category B designation
					assigned to 10 CFR 35.490.
					accigned to 10 cr 14 cc 16 cr
15	12VAC5-	35.491	2018-1	В	Training for ophthalmic use of
	481-2019				strontium-90
					Virginia needs to change the end of
					12VAC5-481-2019.2.c. to read: "is
					able to independently fulfill the
					radiation safety-related duties as an
					authorized user of strontium-90 for
					ophthalmic use."
					Virginia needs to make the above
					change in order to meet the
					compatibility category B designation
					assigned to 10 CFR 35.491.
16	12VAC5-	35.590	2018-1	В	Training for use of sealed sources
'0	481-2030	00.000	2010-1		and medical devices for diagnosis
	101 2000				and modical devices for diagnosis
					Virginia needs to add "or the agency,
			1		or an Agreement State. The names of
			1		board certifications that have been
			1		recognized by the NRC or an
					Agreement State are posted on the
					NRC's Medical Uses Licensee Toolkit

STA	TE SECTION	NRC SECTION	RATS ID	CATEGORY	SUBJECT and COMMENTS
					Web page; or "after "by the NRC" in 12VAC5-481-2030.1.  Virginia needs to make the above change in order to meet the compatibility category B designation assigned to 10 CFR 35.590.
17	12VAC5- 481-2048	35.655(a)	2018-1	H&S	Full-inspection servicing for teletherapy and gamma stereotactic radiosurgery units  Virginia omits "and other safety components" from 12VAC5-481-2048.A.  Virginia needs to make the above change in order to meet the compatibility category H&S designation assigned to 10 CFR 35.655(a).
18	12VAC5- 481-2040	35.690	2018-1	В	Training for use of remote afterloader units, teletherapy units, and gamma stereotactic radiosurgery units  Virginia needs to change 12VAC5-481-2040.A.1 to read: "Who is certified by a medical specialty board whose certification process has been recognized by the NRC, the agency, or an Agreement State and who meets the requirements in subdivision 3 of this section. The names of board certifications that have been recognized by the NRC the agency, or an Agreement State are posted on the NRC's Medical Uses Licensee Toolkit web page. To have its certification process recognized, a specialty board shall require all candidates for certification to: a. Successfully complete a minimum of 3 years of residency training in a radiation therapy program approved by the Residency Review Committee

STA	TE SECTION	NRC SECTION	RATS ID	CATEGORY	SUBJECT and COMMENTS
					of the Accreditation Council for Graduate Medical Education or the Royal College of Physicians and Surgeons of Canada or the Committee on Post-Graduate Training of the American Osteopathic Association; and b. Pass an examination, administered by diplomates of the specialty board, which tests knowledge and competence in radiation safety, radionuclide handling, treatment planning, quality assurance, and clinical use of stereotactic radiosurgery, remote afterloaders and external beam therapy; or."  Virginia needs to correct a reference in 12VAC5-481-2040.A.3. The section should read: "Who has obtained written attestation that the individual has satisfactorily completed the requirements in subdivision 2 a and b of this subsection and subdivision 4 of this subsection and has achieved a level of competency sufficient to function"  Virginia needs to make the above changes in order to meet the compatibility category B designation assigned to 10 CFR 35.690.
19	12VAC5- 481-2080.A	35.3045	2018-1	С	Report and notification of a medical event  Virginia needs to add "implant" between "permanent" and "brachytherapy" in 12VAC5-481-2080.A.1.  Virginia needs to make the above change in order to meet the compatibility category C designation assigned to 10 CFR 35.3045.
20	12VAC5-	36.55	2020-1	H&S	Personnel monitoring

STA	TE SECTION	NRC SECTION	RATS ID	CATEGORY	SUBJECT and COMMENTS
	481-2850				Virginia needs to remove the word "processor" from the second sentence of 12 VAC 5-481-2850.A.  Virginia needs to make the above change in order to meet the compatibility category H&S designation assigned to 10 CFR 36.55.
21	12VAC5- 481-3290	39.65	2020-1	C	Personnel monitoring  Virginia needs to revise the first sentence of 12VAC5-481-3290 to read, "No licensee shall permit any individual to act as a logging supervisor or a logging assistant unless each such individual wears a personnel dosimeter at all times during the handling of licensed radioactive materials."  Virginia needs to make the above change in order to meet the compatibility category C designation assigned to 10 CFR 39.65.

## **EDITORIAL COMMENT**

12VAC5-481-2080.D	35.3204	Editorial Note: Virginia needs
		to correct several
		typographical and spelling
		errors in this regulation.

#### **STATE REGULATION STATUS**

State: Virginia Tracking Ticket Number: 20-33 Date: 09/21/2020

[ # amendment(s) reviewed identified by a \* at the beginning of the equivalent NRC requirement.]

RATS ID	NRC Chronology Identification	Date Due for State Adoption	Incoming Letter	Outgoing Package	Notes
1991-1	Safety Requirements for Radiographic Equipment Part 34 55 FR 843 (Superceded by 1997-5)	01/10/1994	Final ML081760528 ML082960329	No Comments 11/10/2008 ML082970632	
1991-2	ASNT Certification of Radiographers Part 34 56 FR 11504 (Superceded by 1997-5)	none	Final ML081760528 ML082960329	No Comments 11/10/2008 ML082970632	
1991-3	Standards for Protection Against Radiation Part 20 56 FR 23360; 56 FR 61352; 57 FR 38588; 57 FR 57877; 58 FR 67657; 59 FR 41641; 60 FR 20183	01/01/1994	Final ML081760528 ML082960329	No Comments 11/10/2008 ML082970632	
1991-4	Notification of Incidents Parts 20, 30, 31, 34, 39, 40, and 70 56 FR 64980	10/15/1994	Final ML081760528 ML082960329	No Comments 11/10/2008 ML082970632	
1992-1	Quality Management Program and Misadministrations Part 35 56 FR 34104 (Superceded by 2002-2)	01/27/1995	Final ML081760528 ML082960329	No Comments 11/10/2008 ML082970632	
1992-2	Eliminating the Recordkeeping Requirements for Departures from Manufacturer's Instructions Parts 30 and 35 57 FR 45566	none	Final ML081760528 ML082960329	No Comments 11/10/2008 ML082970632	

RATS ID	NRC Chronology Identification	Date Due for State Adoption	Incoming Letter	Outgoing Package	Notes
1993-1	Decommissioning Recordkeeping and License Termination: Documentation Additions [Restricted areas and spill sites] Parts 30 and 40 58 FR 39628	10/25/1996	Final ML081760528 ML082960329	No Comments 11/10/2008 ML082970632	
1993-2	Licensing and Radiation Safety Requirements for Irradiators Part 36 58 FR 7715	07/01/1996	Final ML081760528 ML082960329	No Comments 11/10/2008 ML082970632	
1993-3	Definition of Land Disposal and Waste Site QA Program Part 61 58 FR 33886	07/22/1996	Final ML081760528 ML082960329	No Comments 11/10/2008 ML082970632	
1994-1	Self-Guarantee as an Additional Financial Mechanism Parts 30, 40, and 70 58 FR 68726; 59 FR 1618	none	Final ML081760528 ML082960329	No Comments 11/10/2008 ML082970632	
1994-2	Uranium Mill Tailings Regulations: Conforming NRC Requirements to EPA Standards Part 40 59 FR 28220	07/01/1997	Final ML081760528 ML082960329	No Comments 11/10/2008 ML082970632	
1994-3	Timeliness in Decommissioning Material Facilities Parts 30, 40, and 70 59 FR 36026	08/15/1997	Final ML081760528 ML082960329	No Comments 11/10/2008 ML082970632	
1995-1	Preparation, Transfer for Commercial Distribution, and Use of Byproduct Material for Medical Use Parts 30, 32, and 35 59 FR 61767; 59 FR 65243; 60 FR 322	01/01/1998	Final ML081760528 ML082960329	No Comments 11/10/2008 ML082970632	

RATS ID	NRC Chronology Identification	Date Due for State Adoption	Incoming Letter	Outgoing Package	Notes
1995-2	Frequency of Medical Examinations for Use of Respiratory Protection Equipment Part 20 60 FR 7900	03/13/1998	Final ML081760528 ML082960329	No Comments 11/10/2008 ML082970632	
1995-3	Low-Level Waste Shipment Manifest Information and Reporting Parts 20 and 61 60 FR 15649; 60 FR 25983	03/01/1998	Final ML081760528 ML082960329	No Comments 11/10/2008 ML082970632	
1995-4	Performance Requirements for Radiography Equipment Part 34 60 FR 28323 (Superceded by 1997-5)	06/30/1998	Final ML081760528 ML082960329	No Comments 11/10/2008 ML082970632	
1995-5	Radiation Protection Requirements: Amended Definitions and Criteria Parts 19 and 20 60 FR 36038	08/14/1998	Final ML081760528 ML082960329	No Comments 11/10/2008 ML082970632	
1995-6	Clarification of Decommissioning Funding Requirements Parts 30, 40, and 70 60 FR 38235	11/24/1998	Final ML081760528 ML082960329	No Comments 11/10/2008 ML082970632	
1995-7	Medical Administration of Radiation and Radioactive Materials Parts 20 and 35 60 FR 48623 (Superceded by 2002-2 and 2005-2)	10/20/1998	Final ML081760528 ML082960329	No Comments 11/10/2008 ML082970632	

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1996-1	Compatibility with the International Atomic Energy Agency Part 71 60 FR 50248; 61 FR 28724 (Superceded by 2004-1)	04/01/1999	Final ML081760528 ML082960329	No Comments 11/10/2008 ML082970632	
1996-2	One Time Extension of Certain Byproduct, Source and Special Nuclear Materials Licenses Parts 30, 40, and 70 61 FR 1109	02/15/1999	Final ML081760528 ML082960329	No Comments 11/10/2008 ML082970632	
1996-3	Termination or Transfer of Licensed Activities: Recordkeeping Requirements Parts 20, 30, 40, 61, and 70 61 FR 24669	06/17/1999	Final ML081760528 ML082960329	No Comments 11/10/2008 ML082970632	
1997-1	Resolution of Dual Regulation of Airborne Effluents of Radioactive Materials; Clean Air Act Part 20 61 FR 65120	01/9/2000	Final ML081760528 ML082960329	No Comments 11/10/2008 ML082970632	
1997-2	Recognition of Agreement State Licenses in Areas Under Exclusive Federal Jurisdiction Within an Agreement State Part 150 62 FR 1662	02/27/2000	Final ML081760528 ML082960329	No Comments 11/10/2008 ML082970632	
1997-3	Criteria for the Release of Individuals Administered Radioactive Material Parts 20 and 35 62 FR 4120	05/29/2000	Final ML081760528 ML082960329	No Comments 11/10/2008 ML082970632	

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1997-4	Fissile Material Shipments and Exemptions Part 71 62 FR 5907 (Superceded by 2004-1)	02/10/2000	Final ML081760528 ML082960329	No Comments 11/10/2008 ML082970632	
1997-5	Licenses for Industrial Radiography and Radiation Safety Requirements for Industrial Radiography Operations Parts 30, 34, 71, and 150 62 FR 28947	06/27/2000	Final ML081760528 ML082960329	No Comments 11/10/2008 ML082970632	
1997-6	Radiological Criteria for License Termination Parts 20, 30, 40, and 70 62 FR 39057	08/20/2000	Final ML081760528 ML082960329	No Comments 11/10/2008 ML082970632	
1997-7	Exempt Distribution of a Radioactive Drug Containing One Micro curie of Carbon-14 Urea Part 30 62 FR 63634	01/02/2001	Final ML081760528 ML082960329	No Comments 11/10/2008 ML082970632	
1998-1	Deliberate Misconduct by Unlicensed Persons Parts 30, 40, 61, 70, 71, and 150 63 FR 1890; 63 FR 13773	02/12/2001	Final ML081760528 ML082960329	No Comments 11/10/2008 ML082970632	
1998-2	Self-Guarantee of Decommissioning Funding by Nonprofit and Non-Bond-Issuing Licensees Parts 30, 40, and 70 63 FR 29535	07/01/2001	Final ML081760528 ML082960329	No Comments 11/10/2008 ML082970632	
1998-3	License Term for Medical Use Licenses Part 35 63 FR 31604 (Superceded by 2002-2)	07/10/2001	Final ML081760528 ML082960329	No Comments 11/10/2008 ML082970632	

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1998-4	Licenses for Industrial Radiography and Radiation Safety Requirements for Industrial Radiographic Operations Part 34 63 FR 37059	07/09/2001	Final ML081760528 ML082960329	No Comments 11/10/2008 ML082970632	
1998-5	Minor Corrections, Clarifying Changes, and a Minor Policy Change Parts 20, 32, 35, 36, and 39 63 FR 39477; 63 FR 45393	10/26/2001	Final ML081760528 ML082960329	No Comments 11/10/2008 ML082970632	
1998-6	Transfer for Disposal and Manifests: Minor Technical Conforming Amendment Part 20 63 FR 50127	11/20/2001	Final ML081760528 ML082960329	No Comments 11/10/2008 ML082970632	
1999-1	Radiological Criteria for License Termination of Uranium Recovery Facilities Part 40 64 FR 17506	06/11/2002	Final ML081760528 ML082960329	No Comments 11/10/2008 ML082970632	
1999-2	Requirements for Those Who Possess Certain Industrial Devices Containing Byproduct Material to Provide Requested Information Part 31 64 FR 42269	10/04/2002	Final ML081760528 ML082960329	No Comments 11/10/2008 ML082970632	
1999-3	Respiratory Protection and Controls to Restrict Internal Exposure Part 20 64 FR 54543; 64 FR 55524	02/02/2003	Final ML081760528 ML082960329	No Comments 11/10/2008 ML082970632	

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2000-1	Energy Compensation Sources for Well Logging and Other Regulatory Clarifications Part 39 65 FR 20337	05/17/2003	Final ML081760528 ML082960329	No Comments 11/10/2008 ML082970632	
2000-2	New Dosimetry Technology Parts 34, 36, and 39 65 FR 63750	01/08/2004	Final ML081760528 ML082960329	No Comments 11/10/2008 ML082970632	
2001-1	Requirements for Certain Generally Licensed Industrial Devices Containing Byproduct Material Parts 30, 31, and 32 65 FR 79162	02/16/2004	Final ML081760528 ML082960329	No Comments 11/10/2008 ML082970632	
2002-1	Revision of the Skin Dose Limit Part 20 67 FR 16298	04/05/2005	Final ML081760528 ML082960329	No Comments 11/10/2008 ML082970632	
2002-2	Medical Use of Byproduct Material Parts 20, 32, and 35 67 FR 20249	10/24/2005	Final ML081760528 ML082960329	No Comments 11/10/2008 ML082970632	
2003-1	Financial Assurance for Materials Licensees Parts 30, 40, and 70 68 FR 57327	12/03/2006	Final ML081760528 ML082960329	No Comments 11/10/2008 ML082970632	
2004-1	Compatibility With IAEA Transportation Safety Standards and Other Transportation Safety Amendments Part 71 69 FR 3697	10/01/2007	Final ML081760528 ML082960329	No Comments 11/10/2008 ML082970632	

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2005-1	Security Requirements for Portable Gauges Containing Byproduct Material Part 30 70 FR 2001	07/11/2008	Final ML081760528 ML082960329	No Comments 11/10/2008 ML082970632	
2005-2	Medical Use of Byproduct Material - Recognition of Specialty Boards Part 35 70 FR 16336; 71 FR 1926	04/29/2008	Final ML081760528 ML082960329	No Comments 11/10/2008 ML082970632	
2005-3	Increased Controls for Risk-Significant Radioactive Sources (NRC Order EA-05-090) 70 FR 72128	12/01/2005	Final ML100280901	No Comments 03/02/2010 ML100350973	
2006-1	Minor Amendments Parts 20, 30, 32, 35, 40, and 70 71 FR 15005	03/27/2009	Final ML081760528 ML082960329	No Comments 11/10/2008 ML082970632	
2006-2	National Source Tracking System - Serialization Requirements Part 32 with reference to Part 20 Appendix E 71 FR 65685	02/06/2007	Final ML081760528 ML082960329	No Comments 11/10/2008 ML082970632	
2006-3	National Source Tracking System Part 20 71 FR 65685, 72 FR 59162	01/31/2009	Final ML081760528 ML082960329	No Comments 11/10/2008 ML082970632	
2007-1	Medical Use of Byproduct Material - Minor Corrections and Clarifications Parts 32 and 35 72 FR 45147, 54207	10/29/2010	Final ML081760528 ML082960329	No Comments 11/10/2008 ML082970632	

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2007-2	Exemptions From Licensing, General Licenses, and Distribution of Byproduct Material: Licensing and Reporting Requirements Parts 30, 31, 32, and 150 72 FR 58473	12/17/2010	Final ML081760528 ML082960329	No Comments 11/10/2008 ML082970632	
2007-3	Requirements for Expanded Definition of Byproduct Material Parts 20, 30, 31, 32, 33, 35, 61, and 150 72 FR 55864	11/30/2010	Final ML081760528 ML082960329	No Comments 11/10/2008 ML082970632	
2007-4	Order Imposing Fingerprinting Requirements and Criminal History Records Check Requirements for Unescorted Access to Certain Radioactive Material NRC Order EA-07-305 72 FR 70901	06/05/2008	Final ML100280901	Comments 03/02/2010 ML100350973	
2008-1	Occupational Dose Records, Labeling Containers, and Total Effective Dose Equivalent Parts 19 and 20 72 FR 68043	02/15/2011	Final ML081760528 ML082960329	No Comments 11/10/2008 ML082970632	
2009-1	Medical Use of Byproduct Material – Authorized User Clarification Part 35 74 FR 33901	09/28/2012	Final ML081760528 ML082960329	No Comments 11/10/2008 ML082970632	Adopted Part 35 by reference when became an Agreement State.
2011-1	Decommissioning Planning Parts 20, 30, 40, and 70 76 FR 35512	12/17/2015	Proposed ML14307B118	Comments 02/19/2015 ML14307B093	
			Final ML16203A332	No Comments 9/7/2016 ML16203A306	

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2011-2	Licenses, Certifications, and Approvals for Materials Licensees Parts 30, 36, 39, 40, 70, and 150 76 FR 56951	11/14/2014	Proposed ML14307B118 Final ML16203A332	No Comments 02/19/2015 ML14307B093 No Comments 9/7/2016	
			WIL 16203A332	ML16203A306	
2012-1	Change of Compatibility of Parts 31.5 and 31.6 (See RATS ID: 2001-1 for Rule text) 77 FR 3640	01/25/2015	Proposed ML14307B118	Comments 02/19/2015 ML14307B093	
	77 110 3040		Final ML16203A332	No Comments 9/7/2016 ML16203A306	
2012-2	Advance Notification to Native American Tribes of Transportation of Certain Types of Nuclear Waste Part 71 77 FR 34194	08/10/2015	Proposed ML14307B118	Comments 20/19/2015 ML14307B093	
	77 110 34 134		Final ML16203A332	Comments 9/7/2016 ML16203A306	
			Revised Final ML17052A675	No Comments 03/22/2017 ML17052A607	

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2012-3	Technical Corrections Parts 30, 34, 40, and 71 77 FR 39899	08/06/2015	Proposed ML14307B118	Comments 02/19/2015 ML14307B093	
			Final ML16203A332	Comments 9/7/2016 ML16203A306	
			Revised Final ML17052A675	No Comments 03/22/2017 ML17052A607	
2012-4	Requirements for Distribution of Byproduct Material Parts 30, 31, 32, 40, and 70 77 FR 43666	10/23/2015	Proposed ML14307B118	Comments 02/19/2015 ML14307B093	
			Final ML16203A332	Comments 9/7/2016 ML16203A306	
			Revised Final ML17052A675	No Comments 03/22/2017 ML17052A607	
2013-1	Physical Protection of Byproduct Material, Parts 20, 30, 32, 33, 34, 35, 36, 37, 39, and 71 78 FR 16922	03/19/2016	Proposed ML14307B118	Comments 02/19/2015 ML14307B093	
			Final ML16054A490	Comments 03/04/2016 ML16054A371	

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2013-2	Distribution of Source Material to Exempt Persons and to General Licensees and Revision of General License and Exemptions,	08/27/2016	Proposed ML14307B118	Comments 02/19/2015 ML14307B093	ats 15 7B093 ats 3A306 at 17 2A607 ments 17 9D381
	Parts 30, 40, and 70 78 FR 32310		Final ML16203A332	Comments 9/7/2016 ML16203A306	
			Revised Final Comment 03/22/2017 ML17052A675		
			Revised Final ML17139D382	No Comments 06/27/2017 ML17139D381	
2015-1	Domestic Licensing of Special Nuclear Material – Written Reports and Clarifying Amendments Part 70 70 EP 57731 80 EP 143	01/26/2018	Proposed ML17139D382	ML17139D381  posed No Comments	
	'9 FR 57721, 80 FR 143		Final ML17298B164	No Comments 12/08/2017 ML17298B153	
2015-2	Safeguards Information - Modified Handling Categorization, Change for Materials Facilities Parts 30, 37, 73, and 150 79 FR 58664, 80 FR 3865	01/28/2018	Proposed ML17139D382	No Comments 06/27/2017 ML17139D381	
	73111 00004, 00111 0000		Final ML17298B164	No Comments 12/08/2017 ML17298B153	

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2015-3	Revisions to Transportation Safety Requirements and Harmonization with International Atomic Energy Agency Transportation Requirements	07/13/2018 *extended to 08/15/2020	Proposed ML17139D382	Comments 06/27/2017 ML17139D381	Notes
	Part 71 80 FR 33987	See STC 17-060	Final ML17298B164	Comments 12/08/2017 ML17298B153	
			Revised Final ML18100B262	No Comments 4/27/2018 ML18100B259	
2015-4	Miscellaneous Corrections, Parts 37 and 40 80 FR 45841	09/02/2018	Proposed ML17139D382	No Comments 06/27/2017 ML17139D381	
			Final ML17298B164	No Comments 12/08/2017 ML17298B153	
2015-5	Miscellaneous Corrections, Parts 19, 20, 30, 32, 37, 40, 61, 70, 71, and 150 80 FR 74974	12/31/2018	Proposed ML17139D382	No Comments 06/27/2017 ML17139D381	
			Final ML17298B164	No Comments 12/08/2017 ML17298B153	
*2018-1	Medical Use of Byproduct Material – Medical Event Definitions, Training and Experience, and Clarifying Amendments, 10 CFR Parts 30, 32 and 35	01/14/2022	Proposed ML20225A207	Comments 09/21/2020 ML20225A186	

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*2018-2	Miscellaneous Corrections - Organizational Changes 10 CFR Parts 37, 40. 70 and 71	12/21/2021	Proposed ML20225A207	No Comments 09/21/2020 ML20225A186	
*2018-3	Miscellaneous Corrections 10 CFR Parts 1, 2, 34, 37, 50, 71, 73, and 140	07/30/2022	Proposed ML20225A207	No Comments 09/21/2020 ML20225A186	
*2019-1	Miscellaneous Corrections 10 CFR Parts 2, 21, 37, 50, 52, 73, and 110	12/18/2022	Proposed ML20225A207	No Comments 09/21/2020 ML20225A186	
*2019-2	Organizational Changes and Conforming Amendments 10 CFR Parts 1, 2, 37, 40, 50, 51, 52, 55, 71, 72, 73, 74, 100, 140, and 150	12/30/2022	Proposed ML20225A207	No Comments 09/21/2020 ML20225A186	
*2020-1	Individual Monitoring Devices 10 CFR Parts 34, 36, and 39	06/16/2023	Proposed ML20225A207	Comment 09/21/2020 ML20225A186	
*2020-2	Social Security Number Fraud Prevention 10 CFR Parts 9 and 35	08/17/2023	Proposed ML20225A207	No Comments 09/21/2020 ML20225A186	