

#### UNITED STATES NUCLEAR REGULATORY COMMISSION WASHINGTON, D.C. 20555-0001

March 28, 2017

Mr. Joshua E. Daehler, Supervisor Radioactive Materials Unit Radiation Control Program Massachusetts Department of Public Health Schrafft Center, Suite 1M2A 529 Main Street Charlestown, MA 02129

Dear Mr. Daehler:

We have reviewed the proposed revisions to the Massachusetts regulations for the Control of Radiation, 105 CMR 120.000, received by our office on February 27, 2017. These regulations were reviewed by comparison to the equivalent U.S. Nuclear Regulatory Commission (NRC) rules and Regulation Amendment Tracking System Identification Number (RATS ID) 2015-3 as identified in the enclosed State Regulation Status (SRS) Data Sheet. We discussed our review of the regulations with you on March 28, 2017.

As a result of our review, we have seven 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 Massachusetts 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 Massachusetts 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 Material Safety, State, Tribal, and Rulemaking Programs, NMSS.

The SRS Data Sheet summarizes our knowledge of the status of other Massachusetts 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. J. Daehler

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 (267) 884-2305 or (<u>Michelle.Beardsley@nrc.gov</u>).

Sincerely,

### /RA/ PMichalak for PHenderson

Pamela J. Henderson, Deputy Director Division of Material Safety, State, Tribal and Rulemaking Programs Office of Nuclear Material Safety and Safeguards

Enclosures:

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

# COMPATIBILITY COMMENTS ON MASSACHUSETTS PROPOSED REGULATIONS

STA 1	TE SECTION 120.772	NRC SECTION 71.4	2015-3	[B]	SUBJECT and COMMENTS Definition: Low Specific Activity (LSA)
					In its equivalent to 71.4's definition of Low Specific Activity, section (1)(ii), MA omits the phrase ", provided they are unirradiated and in solid or liquid form;"
					MA needs to revise its 120.772(1)(b) definition of Low Specific Activity to state, "Natural uranium, depleted uranium, natural thorium or their componds or mixtures, provided they are unirradiated and in solid or liquid form;" to meet the Compatibility Category [B] designation assigned to 71.4.
2	120.005	71.4	2015-3	[B]	Definition: Special form radioactive material
					In its equivalent to 71.4's definition of Special form radioactive material, section (3), MA omits the specific references to 71.75, 71.4, 71.75(d), and additional relevant language related to defining this material.
					MA needs to include the specific reference to these regulations and other relevant information in its definition of Special form radioactive material, to meet the Compatibility Category [B] designation assigned to 71.4.
3	120.016(L)	71.8	N/A	С	Deliberate misconduct
					10 CFR 71.17 and 71.21 require the licensee to comply with the provisions in Subpart A which includes 71.8. However, the MA equivalent regulations in 120.016(L) do not contain the essential objectives of

Enclosure 1

0.7.4			DATO ID		
STA	TE SECTION	NRC SECTION	RATSID	CATEGORY	SUBJECT and COMMENTS71.8, (e.g., omits provision for quality assurance programs).MA needs to revise 120.016(L) to meet the essential objectives of 71.8 to meet the Compatibility Category C designation assigned to 10 CFR 71.8.
4	120.777 120.780 120.793	71.17 71.21 71.106	2015-3	B	General license: NRC approved packageGeneral license: Use of foreign approved package10 CFR 71.17, 71.21 and 71.106 require the licensee to comply with the Subpart H requirements. However, MA equivalent regulations to Subpart H of 10 CFR 71 (i.e., 120.790 to 120.794) do not include an equivalent regulation to 71.137. MA needs to revise their equivalent Subpart H provisions to include their equivalent regulations to 71.137, or cite to this NRC regulation.MA needs to make the change 
5	120.788A(B) and (C) 120.791(A) 120.794	71.91(c) and (d) 71.103(a) 71.135	2015-3	С	Records MA regulations in 120.788A(B) and (C), 120.791(A) and 120.794 contain the phrase, "certificate holder, and an applicant for a Certificate of Compliance (COC)". Since the NRC has the sole authority for issuing certificates of compliance, these terms do not apply to the Agreement States. MA needs to omit the phrase as indicated above to meet the

STA	TE SECTION	NRC SECTION	RATS ID	CATEGORY	SUBJECT and COMMENTS Compatibility Category C designation assigned to 71.91(c) and (d), 71.103(a), and 71.135.
6	120.790(B) and (C)	71.101(b) and (c)(1)	2015-3	C	Quality assurance requirements MA regulations in 120.790(B) and (C) contain the phrase, "certificate holder, and an applicant for a COC." Since the NRC has the sole authority for issuing certificates of compliance, these terms do not apply to the Agreement States and should be deleted. In addition, in 120.790(B), MA cites NRC regulations for 71.101 through 71.137, however MA has equivalent regulations for all of those except 71.137. MA needs to reference their regulations, (i.e. 120.790 through 120.794) and 71.137 in order to avoid a duplication of requirements. MA also needs to add a reference to 71.137 in 120.790(C), or reference a MA equivalent regulation. MA needs to make the changes indicated above to meet the Compatibility Category C designation assigned to 71.101(b) and (c)(1).
7	120.795 Appendix A	Part 71, Appendix A	2015-3	[B]	Determination of A <sub>1</sub> and A <sub>2</sub> MA Appendix A contains the following errors: In III., they omit a "," after "applied". The phrase should read " applied, shall be those corresponding" In IV.a., they omit the subscript "1" after the second "A." The phrase should read

STATE SECTION	NRC SECTION	RATS ID	CATEGORY	SUBJECT and COMMENTS
				"where B(i) is the activity of radionuclide i in special form, and $A_1(i)$ is the $A_1$ value for radionuclide i."
				<ul> <li>In IV.b., they have "I" instead of "i." The phrase should read: "where B(i) is the activity of radionuclide i in normal form, and A<sub>2</sub>(i) is the A<sub>2</sub> value for radionuclide i."</li> <li>In IV.d., they omit phrase "for mixture" in the first formula.</li> <li>In V.a. MA omits a "," after the word "grouped." The phrase should read "the radionuclides may be grouped, and"</li> <li>MA needs to make the corrections indicated above to meet the Compatibility Category [B] designation assigned to Part 71, Appendix A.</li> </ul>

#### STATE REGULATION STATUS

## State: Massachusetts

Tracking Ticket Number: 17-32 Date: 03/28/2017

# [ 1 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 ( <b>Superceded by 1997-5)</b>	01/10/1994	Final	No Comments 03/03/1997	Massachusetts has adopted Final Regulations equivalent to RATS ID: 1997-5.
1991-2	ASNT Certification of Radiographers Part 34 56 FR 11504 ( <b>Superceded by 1997-5)</b>	none	Not Required	Not Required	Massachusetts has adopted Final Regulations equivalent to RATS ID: 1997-5.
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	No Comments 03/03/1997	
1991-4	Notification of Incidents Parts 20, 30, 31, 34, 39, 40, and 70 56 FR 64980	10/15/1994	Final	No Comments 03/03/1997	
1992-1	Quality Management Program and Misadministrations Part 35 56 FR 34104 (Superceded by 2002-2)	01/27/1995	Final	No Comments 03/03/1997	Massachusetts has adopted Final Regulations equivalent to RATS ID: 2002-2.
1992-2	Eliminating the Recordkeeping Requirements for Departures from Manufacturer's Instructions Parts 30 and 35 57 FR 45566	none	Not Required	Not Required	These regulation changes are not required to be adopted for purposes of Compatibility.

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	No Comments 03/03/1997	
1993-2	Licensing and Radiation Safety Requirements for Irradiators Part 36 58 FR 7715	07/01/1996	Final	No Comments 03/03/1997	
1993-3	Definition of Land Disposal and Waste Site QA Program Part 61 58 FR 33886	07/22/1996	Final	No Comments 03/03/1997	
1994-1	Self-Guarantee as an Additional Financial Mechanism Parts 30, 40, and 70 58 FR 68726; 59 FR 1618	none	Final	No Comments 03/03/1997	These regulation changes are not required to be adopted for purposes of Compatibility.
1994-2	Uranium Mill Tailings Regulations: Conforming NRC Requirements to EPA Standards Part 40 59 FR 28220	07/01/1997	Not Applicable	Not Applicable	Massachusetts does not have authority to regulate this material under its Agreement.
1994-3	Timeliness in Decommissioning Material Facilities Parts 30, 40, and 70 59 FR 36026	08/15/1997	Final ML062980638	No Comments 11/30/2006 ML063380019	
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	No Comments 09/21/1999	

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 ML062980638	No Comments 11/30/2006 ML063380019	
1995-3	Low-Level Waste Shipment Manifest Information and Reporting Parts 20 and 61 60 FR 15649; 60 FR 25983	03/01/1998	Final ML062980638	No Comments 11/30/2006 ML063380019	
1995-4	Performance Requirements for Radiography Equipment Part 34 60 FR 28323 (Superceded by 1997-5)	06/30/1998	Not Required	Not Required	Massachusetts has adopted Final Regulations equivalent to RATS ID: 1997-5.
1995-5	Radiation Protection Requirements: Amended Definitions and Criteria Parts 19 and 20 60 FR 36038	08/14/1998	Final ML062980638	No Comments 11/30/2006 ML063380019	
1995-6	Clarification of Decommissioning Funding Requirements Parts 30, 40, and 70 60 FR 38235	11/24/1998	Final ML062980638	No Comments 11/30/2006 ML063380019	
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	No Comments 09/21/1999	Massachusetts has not yet adopted Final Regulations equivalent to RATS ID: 2005-2.
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	No Comments 09/21/1999	Massachusetts has not yet adopted Final Regulations equivalent to RATS ID: 2004-1.

RATS ID	NRC Chronology Identification	Date Due for State Adoption	Incoming Letter	Outgoing Package	Notes
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	Not Required	Not Required	These regulation changes are not required to be adopted for purposes of Compatibility.
1996-3	Termination or Transfer of Licensed Activities: Record keeping Requirements Parts 20, 30, 40, 61, and 70 61 FR 24669	06/17/1999	Final	No Comments 09/21/1999	
1997-1	Resolution of Dual Regulation of Airborne Effluents of Radioactive Materials; Clean Air Act Part 20 61 FR 65120	01/9/2000	Final	No Comments 09/21/1999	
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 ML062980638	No Comments 11/30/2006 ML063380019	
1997-3	Criteria for the Release of Individuals Administered Radioactive Material Parts 20 and 35 62 FR 4120	05/29/2000	Final ML062980638	No Comments 11/30/2006 ML063380019	
1997-4	Fissile Material Shipments and Exemptions Part 71 62 FR 5907 (Superceded by 2004-1)	02/10/2000	Not Required	Not Required	These regulation changes are not required to be adopted for purposes of Compatibility. (See STP-97-078)
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	No Comments 09/21/1999	

RATS ID	NRC Chronology Identification	Date Due for State Adoption	Incoming Letter	Outgoing Package	Notes
1997-6	Radiological Criteria for License Termination Parts 20, 30, 40, and 70 62 FR 39057	08/20/2000	Final ML062980638	No Comments 11/30/2006 ML063380019	
1997-7	Exempt Distribution of a Radioactive Drug Containing One Microcurie of Carbon-14 Urea Part 30 62 FR 63634	01/02/2001	Final	No Comments 09/21/1999	
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 ML062980638	No Comments 11/30/2006 ML063380019	
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	Not Required	Not Required	These regulation changes are not required to be adopted for purposes of Compatibility.
1998-3	License Term for Medical Use Licenses Part 35 63 FR 31604 (Superceded by 2002-2)	07/10/2001	Not Required	Not Required	These regulation changes are not required to be adopted for purposes of Compatibility. (See STP-98-074) Massachusetts has adopted Final Regulations equivalent to RATS ID: 2002-2.
1998-4	Licenses for Industrial Radiography and Radiation Safety Requirements for Industrial Radiographic Operations Part 34 63 FR 37059	07/09/2001	Final ML062980638	No Comments 11/30/2006 ML063380019	
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 ML062980638	No Comments 11/30/2006 ML063380019	

RATS ID	NRC Chronology Identification	Date Due for State Adoption	Incoming Letter	Outgoing Package	Notes
1998-6	Transfer for Disposal and Manifests: Minor Technical Conforming Amendment Part 20 63 FR 50127	11/20/2001	Final ML062980638	No Comments 11/30/2006 ML063380019	
1999-1	Radiological Criteria for License Termination of Uranium Recovery Facilities Part 40 64 FR 17506	06/11/2002	Not Applicable	Not Applicable	Massachusetts does not have authority to regulate this material under its Agreement.
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	Not Required	Not Required	These regulation changes are not required to be adopted for purposes of Compatibility.
1999-3	Respiratory Protection and Controls to Restrict Internal Exposure Part 20 64 FR 54543; 64 FR 55524	02/02/2003	Final ML062980638	No Comments 11/30/2006 ML063380019	
2000-1	Energy Compensation Sources for Well Logging and Other Regulatory Clarifications Part 39 65 FR 20337	05/17/2003	Final ML062980638	No Comments 11/30/2006 ML063380019	
2000-2	New Dosimetry Technology Parts 34, 36, and 39 65 FR 63750	01/08/2004	Final ML062980638	No Comments 11/30/2006 ML063380019	
2001-1	Requirements for Certain Generally Licensed Industrial Devices Containing Byproduct Material Parts 30, 31, and 32 65 FR 79162	02/16/2004	Final ML062980638	No Comments 11/30/2006 ML063380019	

RATS ID	NRC Chronology Identification	Date Due for State Adoption	Incoming Letter	Outgoing Package	Notes
2002-1	Revision of the Skin Dose Limit Part 20 67 FR 16298	04/05/2005	Final ML062980638	No Comments 11/30/2006 ML063380019	
2002-2	Medical Use of Byproduct Material Parts 20, 32, and 35 67 FR 20249	10/24/2005	Final ML062980638	No Comments 11/30/2006 ML063380019	
2003-1	Financial Assurance for Materials Licensees Parts 30, 40, and 70 68 FR 57327	12/03/2006	Final ML14007A051	No Comments 03/06/2014 ML14007050	
2004-1	Compatibility With IAEA Transportation Safety Standards and Other Transportation Safety Amendments Part 71 69 FR 3697	10/01/2007	Final ML14007A051 Revised Final (not all previous comments were addressed) ML14344A254	Comments 03/06/2014 ML14007050 No Comments 01/16/2015 ML14343A367	
2005-1	Security Requirements for Portable Gauges Containing Byproduct Material Part 30 70 FR 2001	07/11/2008	Final ML120860009	No Comments 05/03/2012 ML120960551	
2005-2	Medical Use of Byproduct Material - Recognition of Specialty Boards Part 35 70 FR 16336; 71 FR 1926	04/29/2008	Final ML14007A051	No Comments 03/06/2014 ML14007050	
2005-3	Increased Controls for Risk-Significant Radioactive Sources (NRC Order EA-05-090) 70 FR 72128	12/01/2005	License Condition ML080110677	No Comments 10/04/2005 ML052780024	

RATS ID	NRC Chronology Identification	Date Due for State Adoption	Incoming Letter	Outgoing Package	Notes
2006-1	Minor Amendments Parts 20, 30, 32, 35, 40, and 70 71 FR 15005	03/27/2009	Final ML14007A051	No Comments 03/06/2014 ML14007050	
2006-2	National Source Tracking System - Serialization Requirements Part 32 with reference to Part 20 Appendix E 71 FR 65685	02/06/2007	License Condition ML070360500	No Comments 02/16/2007 ML070470063	
2006-3	National Source Tracking System Part 20 71 FR 65685, 72 FR 59162	01/31/2009	Final ML102850241	No Comments 11/10/2010 ML102990077	
			License Condition ML082760641	No Comments 10/20/2008 ML082800024	
2007-1	Medical Use of Byproduct Material - Minor Corrections and Clarifications Parts 32 and 35 72 FR 45147, 54207	10/29/2010	Final ML14007A051	No Comments 03/06/2014 ML14007050	
2007-2	Exemptions From Licensing, General Licenses, and Distribution of Byproduct Material: Licensing and Reporting Requirements Parts 30, 31, 32, and 150	12/17/2010	Final ML14007A051	Comments 03/06/2014 ML14007050	
	72 FR 58473		Revised Final (not all previous comments were addressed) ML14344A254	No Comments 01/16/2015 ML14343A367	

RATS ID	NRC Chronology Identification	Date Due for State Adoption	Incoming Letter	Outgoing Package	Notes
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	<b>V</b>	Comments 03/06/2014 ML14007050 No Comments 1/16/2015 ML14343A367	
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	License Condition ML080800501	No Comments 04/14/2008 ML081050505	
2008-1	Occupational Dose Records, Labeling Containers, and Total Effective Dose Equivalent Parts 19 and 20 72 FR 68043	02/15/2011	Final ML120860009	No Comments 05/03/2012 ML120960551	
2009-1	Medical Use of Byproduct Material – Authorized User Clarification Part 35 74 FR 33901	09/28/2012	Final ML14007A051	No Comments 03/06/2014 ML14007050	
2011-1	Decommissioning Planning Parts 20, 30, 40, and 70 76 FR 35512	12/17/2015	Proposed ML16285A473	No Comments 10/26/2016 ML16285A472	

RATS ID	NRC Chronology Identification	Date Due for State Adoption	Incoming Letter	Outgoing Package	Notes
2011-2	Licenses, Certifications, and Approvals for Materials Licensees Parts 30, 36, 39, 40, 70, and 150 76 FR 56951	11/14/2014	Proposed ML14344A254 Final ML16070A231	No Comments 01/16/2015 ML14343A367 No Comments 04/11/2016 ML16070A227	
2012-1	Change of Compatibility of 10 CFR 31.5 and 31.6 (See RATS ID: 2001-1 for Rule text) 77 FR 3640	01/25/2015	Final ML14007A051	No Comments 03/06/2014 ML14007050	
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 ML14344A254 Final ML16070A231	Comments 1/16/2015 ML14343A367 No Comments 04/11/2016 ML16070227	
2012-3	Technical Corrections Parts 30, 34, 40, and 71 77 FR 39899	08/06/2015	Proposed ML14344A254 Final ML16070A231	No Comments 01/16/2015 ML14343A367 No Comments 04/11/2016 ML16070227	
2012-4	Requirements for Distribution of Byproduct Material Parts 30, 31, 32, 40, and 70 77 FR 43666	10/23/2015	Proposed ML16285A473	Comments 10/26/2016 ML16285A472	

RATS ID	NRC Chronology Identification	Date Due for State Adoption	Incoming Letter	Outgoing Package	Notes
2013-1	Physical Protection of Byproduct Material, 10 CFR Parts 20, 30, 32, 33, 34, 35, 36, 37, 39, and 71 78 FR 16922	03/19/2016	Proposed ML15127A416 Final ML16070A231	No Comments 06/29/2015 ML15127A375 No Comments 04/11/2016 ML16070A227	
2013-2	Distribution of Source Material to Exempt Persons and to General Licensees and Revision of General License and Exemptions, Parts 30, 40, and 70 78 FR 32310	08/27/2016	Proposed ML16285A473	Comments 10/26/2016 ML16285A472	
2015-1	Domestic Licensing of Special Nuclear Material – Written Reports and Clarifying Amendments Part 70 79 FR 57721, 80 FR 143	01/26/2018	Final ML16285A473	No Comments 10/26/2016 ML16285A472	
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 ML15127A416 Final ML16070A231	No Comments 06/29/2015 ML15127A375 No Comments 04/11/2016 ML16070A227	
*2015-3	Revisions to Transportation Safety Requirements and Harmonization with International Atomic Energy Agency Transportation Requirements Part 71 80 FR 33987	07/13/2018	Proposed ML17059D085	Comments 03/28/2017 ML17059D084	
2015-4	Miscellaneous Corrections Parts 37 and 40 80 FR 45841	09/02/2018	Final ML16070A231	No Comments 04/11/2016 ML16070227	

RATS ID		Date Due for State Adoption	Outgoing Package	Notes
	Miscellaneous Corrections Parts 19, 20, 30, 32, 37, 40, 61, 70, 71, and 150 80 FR 74974		No Comments 04/11/2016 ML16070227	