

January 19, 2011

Mr. Robert L. Gallagher, Acting Director  
Radiation Control Program  
Bureau of Environmental Health  
Department of Public Health  
529 Main Street  
Charlestown, MA 02129

Dear Mr. Gallagher:

We have reviewed the proposed changes to the Massachusetts Regulations for the Control of Radiation: 105 CMR 120.005, 120.100, 120.200, and 120.750, received by our office on December 2, 2010. These regulations were reviewed by comparison to the equivalent Nuclear Regulatory Commission (NRC) rules in 10 CFR Parts 19, 20, 30, 31, 32, 35, and 150 and the requirements of the three amendments identified in the enclosed State Regulation Status (SRS) Data Sheet. We discussed our review of the regulations with you on January 13, 2011.

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 Federal and State Materials and Environmental Management Programs (FSME) Procedure SA-200.

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 FSME Procedure SA-201, "Review of State Regulatory Requirements," please highlight the final changes, and provide a copy to Division of Materials Safety and State Agreements, FSME.

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 FSME website: <http://nrc-stp.ornl.gov/rulemaking.html>.

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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 Kathleen Schneider, State Regulation Review Coordinator at (301) 415-2320 ([kathleen.schneider@nrc.gov](mailto:kathleen.schneider@nrc.gov)) or Torre Taylor at (301) 415-7900 ([torre.taylor@nrc.gov](mailto:torre.taylor@nrc.gov)).

Sincerely,

***/RA/***

Terrence Reis, Deputy Director  
Division of Materials Safety and State Agreements  
Office of Federal and State Materials and  
Environmental Management Programs

Enclosures:  
As stated

**[Concurrence Page]**

Enclosures: As stated

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**Incoming Document: ML103350064**

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**ML103630206**

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**COMPATIBILITY COMMENTS ON Massachusetts PROPOSED REGULATIONS**

STATE SECTION		NRC SECTION	RATS ID	CATEGORY	SUBJECT and COMMENTS
1	120.104 (C)(1)	30.15	2007-2	B	<p><b>Certain items containing byproduct material</b></p> <p>In regulation 102.104(c)(1)(a)(8), the term “intact” needs to be inserted between “per timepiece in” and “timepiece acquired.”</p> <p>In regulation 102.104(C)(1)(a)(8), the word “acquired” needs to be changed to “manufactured.”</p> <p>Massachusetts needs to make the above changes in order to meet the Compatibility Category B designation assigned to 10 CFR 30.15.</p>
2	120.005	20.1003	2008-1	A	<p><b>Definition: Total Effective Dose Equivalent (TEDE)</b></p> <p>Massachusetts needs to remove the term “deep” from “effective deep dose equivalent”.</p> <p>Massachusetts needs to move “for” inside of the parenthesis to read “...(for internal exposure).”</p> <p>Massachusetts needs to make the above changes in order to meet the Compatibility Category A designation assigned to 10 CFR 20.1003.</p>
3	120.546	35.190	2009-1	B	<p><b>Training for uptake, dilution, and excretion studies</b></p> <p>In 120.546(C)(1)(b), Massachusetts needs to revise “120 546” to “120.546.”</p> <p>Massachusetts needs to make the above change in order to meet the Compatibility Category B designation assigned to 10 CFR 35.190.</p>

STATE SECTION	NRC SECTION	RATS ID	CATEGORY	SUBJECT and COMMENTS
4	120.551	35.290	2009-1	<p data-bbox="1015 254 1364 317"><b>Training for imaging and localization studies</b></p> <p data-bbox="1015 352 1481 520">In 120.551(C)(1)(b), Massachusetts needs to revise the regulation references to read “105 CMR 120.528, 120.551, or 120.556 and 120.551(c)(1)(b)7....”</p> <p data-bbox="1015 556 1500 688">Massachusetts needs to make the above change in order to meet the Compatibility Category B designation assigned to 10 CFR 35.290.</p>
5	120.557	35.392	2009-1	<p data-bbox="1015 722 1507 890"><b>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)</b></p> <p data-bbox="1015 926 1503 1024">In 120.557(B), Massachusetts needs to add 105 CMR 120.556(B)(1)(b)7.a. and 105 CMR 120.558.</p> <p data-bbox="1015 1060 1445 1159">In 120.557(C)(2), Massachusetts needs to add “120.557” between “120.556” and “120.558.”</p> <p data-bbox="1015 1194 1507 1362">In 120.557(C)(2), Massachusetts needs to add “120.556(B)(1)(b).7.a. and”, to the last sentence, after “...in administering dosages as specified in ...”.</p> <p data-bbox="1015 1398 1507 1530">In 120.557(C)(3), Massachusetts needs to add “120.556(B)(1)(b)7.a. and”, to the last sentence, after “...who meets the requirements of...”.</p> <p data-bbox="1015 1566 1500 1698">Massachusetts needs to make the above changes in order to meet the Compatibility Category B designation assigned to 10 CFR 35.392.</p>

STATE SECTION		NRC SECTION	RATS ID	CATEGORY	SUBJECT and COMMENTS
6	120.558	35.394	2009-1	B	<p><b>Training for the oral administration of sodium iodide I-131 requiring a written directive in quantities greater than 1.22 gigabecquerels (33 millicuries)</b></p> <p>In 120.558(C)(2)(d), Massachusetts needs to remove the term “unsealed” before “byproduct material”.</p> <p>Massachusetts needs to make the above change in order to meet the Compatibility Category B designation assigned to 10 CFR 35.394.</p>
7	120.567	35.491	2009-1	B	<p><b>Training for ophthalmic use of strontium-90</b></p> <p>In 120.567(B)(3), Massachusetts needs to remove reference to 120.567(A).</p> <p>Massachusetts needs to make the above change in order to meet the Compatibility Category B designation assigned to 10 CFR 35.491.</p>

**STATE REGULATION STATUS**

State: Massachusetts

Tracking Ticket Number: 10-54

[3 amendment(s) reviewed is identified by a ★  
at the beginning of the equivalent NRC requirement.]

Date: January 19, 2011

RATS ID	NRC Chronology Identification	Date Due for State Adoption	Incoming Package	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, 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 <b>(Superceded by 2002-2)</b>	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, 35 57 FR 45566	none	Not Required	Not Required	These regulation changes are not required to be adopted for purposes of Compatibility.
1993-1	Decommissioning Recordkeeping and License Termination: Documentation Additions [Restricted areas and spill sites] Parts 30, 40 58 FR 39628	10/25/1996	Final	No Comments 03/03/1997	

RATS ID	NRC Chronology Identification	Date Due for State Adoption	Incoming Package	Outgoing Package	Notes
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, 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, 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, 35 59 FR 61767; 59 FR 65243; 60 FR 322	01/01/1998	Final	No Comments 09/21/1999	
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, 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 <b>(Superceded by 1997-5)</b>	06/30/1998	Not Required	Not Required	Massachusetts has adopted Final Regulations equivalent to RATS ID: 1997-5.



RATS ID	NRC Chronology Identification	Date Due for State Adoption	Incoming Package	Outgoing Package	Notes
1995-5	Radiation Protection Requirements: Amended Definitions and Criteria Parts 19, 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, 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, 35 60 FR 48623 <b>(Superceded by 2002-2 and 2005-2)</b>	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 <b>(Superceded by 2004-1)</b>	04/01/1999	Final	No Comments 09/21/1999	Massachusetts has not yet adopted Final Regulations equivalent to RATS ID: 2004-1.
1996-2	One Time Extension of Certain Byproduct, Source and Special Nuclear Materials Licenses Parts 30, 40, 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, 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	

RATS ID	NRC Chronology Identification	Date Due for State Adoption	Incoming Package	Outgoing Package	Notes
1997-3	Criteria for the Release of Individuals Administered Radioactive Material Parts 20, 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 <b>(Superseded by 2004-1)</b>	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, 150 62 FR 28947	06/27/2000	Final	No Comments 09/21/1999	
1997-6	Radiological Criteria for License Termination Parts 20, 30, 40, 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 Micro curie 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, 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, 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 <b>(Superseded by 2002-2)</b>	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.

RATS ID	NRC Chronology Identification	Date Due for State Adoption	Incoming Package	Outgoing Package	Notes
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, 35, 36 63 FR 39477; 63 FR 45393	10/26/2001	Final ML062980638	No Comments 11/30/2006 ML063380019	
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, 39 65 FR 63750	01/08/2004	Final ML062980638	No Comments 11/30/2006 ML063380019	

RATS ID	NRC Chronology Identification	Date Due for State Adoption	Incoming Package	Outgoing Package	Notes
2001-1	Requirements for Certain Generally Licensed Industrial Devices Containing Byproduct Material Parts 30, 31, 32 65 FR 79162	02/16/2004	Final ML062980638	No Comments 11/30/2006 ML063380019	
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, 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, 70 68 FR 57327	12/03/2006	Final ML102850241	No Comments 11/10/2010 ML102990077	
2004-1	Compatibility With IAEA Transportation Safety Standards and Other Transportation Safety Amendments Part 71 69 FR 3697	10/01/2007	Final ML102850241	Comments 11/10/2010 ML102990077	
2005-1	Security Requirements for Portable Gauges Containing Byproduct Material Part 30 70 FR 2001	07/11/2008	Final ML102850241	No Comments 11/10/2010 ML102990077	
2005-2	Medical Use of Byproduct Material - Recognition of Specialty Boards Part 35 70 FR 16336; 71 FR 1926	04/29/2008	Proposed ML1010307800	Comments 06/23/2010 ML101250283	
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	
2006-1	Minor Amendments Parts 20, 30, 32, 35, 40 and 70 71 FR 15005	03/27/2009	Proposed ML1010307800	Comments 06/23/2010 ML101250283	

RATS ID	NRC Chronology Identification	Date Due for State Adoption	Incoming Package	Outgoing Package	Notes
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  License Condition ML082760641	No Comments 11/10/2010 ML102990077  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	Proposed ML1010307800	No Comments 06/23/2010 ML101250283	
*2007-2	Exemptions From Licensing, General Licenses, and Distribution of Byproduct Material: Licensing and Reporting Requirements Parts 30, 31, 32, 150 72 FR 58473	12/17/2010	Proposed ML103350064	Comments 01/19/2011 ML103630079	
2007-3	Requirements for Expanded Definition of Byproduct Material Parts 20, 30, 31, 32, 33, 35, 61, 150 72 FR 55864	11/30/2010	Proposed ML1010307800	Comments 06/23/2010 ML101250283	
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, 20 72 FR 68043	02/15/2011	Proposed ML103350064	Comments 01/19/2011 ML103630079	

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*2009-1	Medical Use of Byproduct Material – Authorized User Clarification Part 35 74 FR 33901	09/28/2012	Proposed ML103350064	Comments 01/19/2011 ML103630079	