

December 29, 2009

Steve Tarlton, Manager  
Radiation Control Program  
Hazardous Materials and Waste Management Division  
4300 Cherry Creek Drive South  
Denver, CO 80246-1530

Dear Mr. Tarlton:

We have reviewed the final revision to the Colorado Regulations, Rules and Regulations Pertaining to Radiation Control Part 1 and Part 5, received by our office on November 4, 2009. These regulations were reviewed by comparison to the equivalent Nuclear Regulatory Commission (NRC) rules in 10 CFR Parts 20, 30, 32, 34, 35, 36, 61, and 71. We discussed our review of the regulations with you on December 29, 2009.

As a result of our review, we have five 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. We have determined that if these regulations are revised, 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 you revise your regulations to address our comments, 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 location of any changes made by Colorado, in response to our comments, and provide a copy to Division of Materials Safety and State Agreements, FSME.

The SRS Data Sheet summarizes our knowledge of the status of Colorado 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>.

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 Leira Cuadrado at 301-415-0707 ([leira.cuadrado@nrc.gov](mailto:leira.cuadrado@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

Distribution:

DIR RF (9-52)

DCD (SP05)

RErickson, RIV

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**SUNSI Review Complete**

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DATE	12/03/09		12/11/09		12/18/09		12/ 29 /09		12/29/09	

**ML093360435**

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**Package ML093360427**

**COMPATIBILITY COMMENTS ON COLORADO'S FINAL REGULATIONS**

STATE SECTION		NRC SECTION	RATS ID	CATEGORY	SUBJECT and COMMENTS
1	Part 1.2	§ 20.1003	N/A	A	<p><b>Definitions</b></p> <p>Colorado's definition for <i>background radiation</i> omits the last sentence of this definition which describes what should not be considered background radiation.</p> <p>Colorado needs to add the last sentence of the definition of <i>Background Radiation</i> as defined in 10 CFR 20.1003 in order to meet the Compatibility Category A designation assigned to 10 CFR 20.1003 Definition: Background Radiation.</p>
2	Part 1.2	§ 20.1003	N/A	B	<p><b>Definitions</b></p> <p>Colorado omits in their definition of <i>nationally tracked source</i> the following sentence: "Category 1 nationally tracked sources are those containing radioactive material at a quantity equal to or greater than the Category 1 threshold. Category 2 nationally tracked sources are those containing radioactive material at a quantity equal to or greater than the Category 2 threshold but less than the Category 1 threshold".</p> <p>Colorado needs to add the sentence mentioned above in order to meet the Compatibility Category B designation assigned to 10 CFR 20.1003 Definition: Nationally Tracked Source.</p>
3	Part 5.6	§ 34.20 (b)	N/A	B	<p><b>Performance requirements for industrial radiography equipment</b></p>

STATE SECTION		NRC SECTION	RATS ID	CATEGORY	SUBJECT and COMMENTS
					<p>In Part 5.6.2.3, Colorado requires approval by the Department, another Agreement State, or the NRC to allow modifications to radiographic equipment which is more restrictive than 10 CFR 34.20(b)(3).</p> <p>Colorado needs to revise the wording in Part 5.6.2.3 to be essentially identical to requirements in 10 CFR 34.20(b)(3) in order to meet Compatibility Category B designation assigned to 10 CFR 34.20.</p>
4	Part 5.14	§ 34.35	N/A	B	<p><b>Labeling, storage and transportation</b></p> <p>Colorado omits the word “<i>Locked</i>” in Part 5.14.3.</p> <p>Colorado needs to add the word “<i>Locked</i>” in the first sentence of Part 5.14.3 in order to meet the Compatibility Category B designation assigned to 10 CFR 34.35.</p>
5	Appendix 5D	§ 34.43 (c) (3)	N/A	B	<p><b>Training</b></p> <p>In Appendix 5D.2.1 Colorado requires written <i>or</i> oral examination to demonstrate understanding of instructions provided to the radiographer assistant. Regulations in 10 CFR 34.43(c)(3) requires successful completion of a written test (which can not be substituted by an oral examination, as stated in Colorado regulations), in order to determine understanding of instructions provided to the radiographer assistant.</p>

STATE SECTION		NRC SECTION	RATS ID	CATEGORY	SUBJECT and COMMENTS
					<p>In addition, Colorado Appendix 5D.2.2 requirements should specify that the training received by the radiographer assistant in the use of radiographic-related hardware must be under personal supervision of the radiographer, as required by 10CFR 34.43(c)(2).</p> <p>Colorado needs to remove the wording "... or oral examination" from Appendix 5D.2.1 and needs to add that the training to the radiographer assistant must be under the personal supervision of the radiographer in Appendix 5D.2.2, in order to meet the Compatibility Category B designation assigned to 10 CFR 34.43(c).</p>

**STATE REGULATION STATUS**

State: Colorado  
 [★Final amendments reviewed not associated  
 with a specific RATS ID]

Tracking Ticket Number: 9-52  
 Date: December 29, 2009

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	Comments 05/29/1997	Colorado 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	Colorado 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 08/18/1997	
1991-4	Notification of Incidents Parts 20, 30, 31, 34, 39, 40, 70 56 FR 64980;	10/15/1994	Final	Comments 05/29/1997	
1992-1	Quality Management Program and Misadministrations Part 35 56 FR 34104 <b>(Superceded by 2002-2)</b>	01/27/1995	Not Required	Not Required	Colorado has adopted Final Regulations equivalent with 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 06/14/2000	

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1993-2	Licensing and Radiation Safety Requirements for Irradiators Part 36 58 FR 7715	07/01/1996	Final	No Comments 05/29/1997	
1993-3	Definition of Land Disposal and Waste Site QA Program Part 61 58 FR 33886	07/22/1996	Final ML043290167	No Comments 01/05/2005 ML050050164	
1994-1	Self-Guarantee as an Additional Financial Mechanism Parts 30, 40, 70 58 FR 68726; 59 FR 1618	none	Final	No Comments 06/14/2000	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	Final ML043290167	No Comments 01/05/2005 ML050050164	
1994-3	Timeliness in Decommissioning Material Facilities Parts 30, 40, 70 59 FR 36026	08/15/1997	Final	No Comments 06/14/2000	
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 06/14/2000	
1995-2	Frequency of Medical Examinations for Use of Respiratory Protection Equipment Part 20 60 FR 7900	03/13/1998	Final	No Comments 06/14/2000	
1995-3	Low-Level Waste Shipment Manifest Information and Reporting Parts 20, 61 60 FR 15649; 60 FR 25983	03/01/1998	Final ML043290167	No Comments 01/05/2005 ML050050164	

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1995-4	Performance Requirements for Radiography Equipment Part 34 60 FR 28323 <b>(Superceded by 1997-5)</b>	06/30/1998	Final	No Comments 06/14/2000	Colorado has adopted Final Regulations equivalent to RATS ID 1997-5.
1995-5	Radiation Protection Requirements: Amended Definitions and Criteria Parts 19, 20 60 FR 36038	08/14/1998	Final ML080770375	No Comments 05/02/2008 ML081221012	
1995-6	Clarification of Decommissioning Funding Requirements Parts 30, 40, 70 60 FR 38235	11/24/1998	Final ML043290167	No Comments 01/05/2005 ML050050164	
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 ML043290167	No Comments 01/05/2005 ML050050164	Colorado has adopted Final Regulations equivalent to RATS IDs: 2002-2 and 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 03/22/2001	Colorado has 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 ML043290167	No Comments 01/05/2005 ML050050164	
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 08/08/2000	

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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	No Comments 06/14/2000	
1997-3	Criteria for the Release of Individuals Administered Radioactive Material Parts 20, 35 62 FR 4120	05/29/2000	Final	No Comments 06/14/2000	
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	Colorado has adopted Final Regulations equivalent to RATS ID 2004-1. (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 08/08/2000	
1997-6	Radiological Criteria for License Termination Parts 20, 30, 40, 70 62 FR 39057	08/20/2000	Final	No Comments 07/13/1999	
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 06/14/2000	
1998-1	Deliberate Misconduct by Unlicensed Persons Parts 30, 40, 61, 70, 71, 150 63 FR 1890; 63 FR 13773	02/12/2001	Final ML010380248	No Comments 09/17/2001 ML012630207	
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.

RATS ID	NRC Chronology Identification	Date Due for State Adoption	Incoming Package	Outgoing Package	Notes
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)  Colorado 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	No Comments 08/08/2000	
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 ML043290167	No Comments 01/05/2005 ML050050164	
1998-6	Transfer for Disposal and Manifests: Minor Technical Conforming Amendment Part 20 63 FR 50127	11/20/2001	Final ML042440167	No Comments 01/05/2005 ML050050164	
1999-1	Radiological Criteria for License Termination of Uranium Recovery Facilities Part 40 64 FR 17506	06/11/2002	Final ML020320440	No Comments 03/28/2002 ML020880468	
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 ML043290167	No Comments 01/05/2005 ML050050164	

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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 ML051580379	No Comments 07/11/2005 ML051930014	
2000-2	New Dosimetry Technology Parts 34, 36, 39 65 FR 63750	01/08/2004	Final ML043290167	No Comments 01/05/2005 ML050050164	
2001-1	Requirements for Certain Generally Licensed Industrial Devices Containing Byproduct Material Parts 30, 31, 32 65 FR 79162	02/16/2004	Final ML043290167	Comments 08/31/2006 ML062400296	
2002-1	Revision of the Skin Dose Limit Part 20 67 FR 16298	04/05/2005	Final ML043290167	No Comments 01/05/2005 ML050050164	
2002-2	Medical Use of Byproduct Material Parts 20, 32, 35 67 FR 20249	10/24/2005	Final ML 051580379	No Comments 07/11/2005 ML051930014	
2003-1	Financial Assurance for Materials Licensees Parts 30, 40, 70 68 FR 57327	12/03/2006	Final ML043290167	No Comments 01/05/2005 ML050050164	
2004-1	Compatibility With IAEA Transportation Safety Standards and Other Transportation Safety Amendments Part 71 69 FR 3697	10/01/2007	Final ML072620303	Comments 10/15/2007 ML072900374	
2005-1	Security Requirements for Portable Gauges Containing Byproduct Material Part 30 70 FR 2001	07/11/2008	Final ML052010436	No Comments 08/05/2005 ML052220212	

RATS ID	NRC Chronology Identification	Date Due for State Adoption	Incoming Package	Outgoing Package	Notes
2005-2	Medical Use of Byproduct Material - Recognition of Specialty Boards Part 35 70 FR 16336; 71 FR 1926	04/29/2008	Final ML051580379	No Comments 07/11/2005 ML051930014	
2005-3	Increased Controls for Risk-Significant Radioactive Sources (NRC Order EA-05-090) 70 FR 72128	12/01/2005	License Condition ML052580384	No Comments 09/19/2005 ML052630557	
2006-1	Minor Amendments Parts 20, 30, 32, 35, 40 and 70 71 FR 15005	03/27/2009			
2006-2	National Source Tracking System - Serialization Requirements Part 32 with reference to Part 20 Appendix E 71 FR 65685	02/06/2007			
2006-3	National Source Tracking System Part 20 71 FR 65685, 72 FR 59162	01/31/2009	License Condition ML082730235	No Comments 10/21/2008 ML082880091	
2007-1	Medical Use of Byproduct Material - Minor Corrections and Clarifications Parts 32 and 35 72 FR 45147, 54207	10/29/2010			
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			
2007-3	Requirements for Expanded Definition of Byproduct Material Parts 20, 30, 31, 32, 33, 35, 61, 150 72 FR 55864	11/30/2010			

RATS ID	NRC Chronology Identification	Date Due for State Adoption	Incoming Package	Outgoing Package	Notes
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 ML081070079	No Comments 05/13/2008 ML081260713	
2008-1	Occupational Dose Records, Labeling Containers, and Total Effective Dose Equivalent Parts 19, 20 72 FR 68043	02/15/2011			
2009-1	Medical Use of Byproduct Material – Authorized User Clarification Part 35 74 FR 33901	09/28/2012			
★N/A	10 CFR 20, 30, 32, 34, 35, 36, 61, 71	N/A	Final ML093020612	Comments 12/29/2009 ML093360435	