



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

March 26, 2014

Stephen Tarlton, Manager  
Radiation Control Program  
Hazardous Materials and Waste Management  
Department of Public Health and Environment  
4300 Cherry Creek Drive South  
Denver, CO 80246

Dear Mr. Tarlton:

We have reviewed the proposed changes to the Colorado *Rules and Regulations Pertaining to Radiation Control, 6 CCR 1007-1, Part 3, Licensing of Radioactive Materials* received by our office on January 16, 2014. These regulations were reviewed by comparison to the equivalent Nuclear Regulatory Commission (NRC) rules in 10 CFR Parts 30, 31, 32, 33, 34, 40, 61, 70 and 150 and the requirements of the seven amendments identified in the enclosed State Regulation Status (SRS) Data Sheet. We discussed our review of the regulations with James Jarvis on March 25, 2014.

Based on discussion with James Jarvis, we have determined that Comment 1 from our January 14, 2014, letter was in error and is withdrawn in accordance with our previous correspondence dated June 28, 2012.

As a result of our review, we have four 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 Colorado 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 Colorado 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, "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 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 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>.

S. Tarlton

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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 Stephen Poy at (301) 415-7135 ([stephen.poy@nrc.gov](mailto:stephen.poy@nrc.gov)).

Sincerely,

**/RA/**

John M. Moses, Acting Deputy Director  
Division of Materials Safety and State Agreements  
Office of Federal and State Materials  
and Environmental Management Programs

Enclosures:

1. Compatibility Comments
2. Colorado SRS Data Sheet

S. Tarlton

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Sincerely,

**/RA/**

John M. Moses, Acting Deputy Director  
Division of Materials Safety and State Agreements  
Office of Federal and State Materials  
and Environmental Management Programs

Enclosures:

1. Compatibility Comments
2. Colorado SRS Data Sheet

DISTRIBUTION: SP08  
Colorado File, 14-4  
RErickson, RSAO/RIV  
BTharakan, RIV  
JKatanic, ASPB

Incoming Document: ML14023A698

OFFICE	ASPB	ASPB	OGC	ASPB:BC	MSSA:DD
NAME	SPoy	KSchneider	PMoulding	DWhite	JMoses
DATE	03/07/14	03/07/14	03/23/14	03/25/14	03/26/14

**ML14065A205**

**OFFICIAL RECORD COPY**

**Package ML14023A698**

## COMPATIBILITY COMMENTS ON COLORADO PROPOSED REGULATIONS

STATE SECTION		NRC SECTION	RATS ID	CATEGORY	SUBJECT and COMMENTS
1	18.2	§40.4 §61.2 <i>Definitions:</i> <i>Active maintenance</i>	N/A	H&S	<p><b>Definition: Active maintenance</b></p> <p>The term “active maintenance” is defined in Part 61.2 and is unique to the requirements for <i>Licensing Requirements for Land Disposal of Radioactive Waste</i> in Part 61. The term is not defined in 10 CFR 40 or in Appendix A to 10 CFR 40. The use of this term in context with the requirements in Part 40, Appendix A for 11e.(2) material can result in conflicts and duplications. Reference to “active maintenance” should be deleted from Section 18.2.</p> <p>Colorado needs to delete the term “active maintenance” from Section 18.2 in order to meet the Category H&amp;S designation assigned to 10 CFR 61.2 and in order to avoid duplications, conflicts and gaps in accordance with the 1997 Policy Statement on Adequacy and Compatibility of Agreement State Programs.</p> <p><b>ERRONEOUS COMMENT IN JANUARY 14, 2014, LETTER. COMMENT Rescinded in June 28, 2012, Letter.</b></p>
2	3.9	Appendix A to Part 40 Criterion 9	2011-1	C	<p><b>Appendix A, Technical Criteria , Criterion 9</b></p> <p>Colorado omits an equivalent paragraph to Appendix A to Part 40 Criterion 9 (a) from their regulations.</p> <p>Colorado omits an equivalent paragraphs to Appendix A to Part 40 Criterion 9 (d)-(i) from their regulations.</p> <p>Colorado needs to make the above change in order to meet the Compatibility Category C designation assigned to 10 CFR Appendix A to Part 40 Criterion 9.</p>
3	3.9.5.10	Part 40,	N/A	C	<b>Appendix A, II. Financial Criteria,</b>

STATE SECTION		NRC SECTION	RATS ID	CATEGORY	SUBJECT and COMMENTS
		Appendix A, Criterion 10			<p><b>Criterion 10</b></p> <p>In Section 3.9.5.10 (4), Colorado's regulations states, "The amount of funds to be provided by such long-term care warranties shall be based on Department-approved cost estimates and shall be enough that with an assumed six percent annual real interest rate, the annual interest earnings will be sufficient to cover to the annual costs of site surveillance by the Department, including reasonable administrative costs incurred by the Department, in perpetuity, subsequent to the termination of the license." In NRC's equivalent requirements in Criterion 10 states "...with an assumed 1 percent annual real interest rate..." The assumption of six percent in the above statement underestimates the amount of funds set aside for long term care creating a situation of having insufficient funds to cover the costs of surveillance. This is less restrictive than the NRC requirements in Criterion 10 and should be revised to address the essential objective of this requirement.</p> <p>Colorado needs to adopt the above change in order to meet the Compatibility Category C designation assigned to Appendix A.</p> <p><b>COMMENT PARTIALLY ADDRESSED AND REVISED from the January 14, 2014, letter.</b></p>
4	N/A	34.20(a)(1)	2012-3	B	<p><b>Performance requirements for industrial radiography equipment</b></p> <p>Colorado did not submit their equivalent regulation to 10 CFR 34.20 for review.</p> <p>Colorado needs to provide for review the above equivalent regulation that meets the essential objectives of 34.20 in order to meet the Compatibility Category B designation assigned to 10 CFR 34.20.</p>

STATE SECTION		NRC SECTION	RATS ID	CATEGORY	SUBJECT and COMMENTS
5	N/A	Part 71, Appendix A, Table A-1	2012-3	B	<p><b>Appendix A, Table A-1</b></p> <p>Colorado did not submit their equivalent regulation to Part 71, Appendix A, Table A-1 for review.</p> <p>Colorado needs to provide for review the above equivalent regulation that meets the essential objectives of Part 71, Appendix A, Table A-1 in order to meet the Compatibility Category B designation assigned to Part 71, Appendix A, Table A-1.</p>

State: Colorado

**STATE REGULATION STATUS**

Tracking Ticket Number: 14-4  
Date: March 26, 2014

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

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 (Superceded by 1997-5)	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 (Superceded by 1997-5)	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 (Superceded by 2002-2)	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.

RATS ID	NRC Chronology Identification	Date Due for State Adoption	Incoming Package	Outgoing Package	Notes
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	
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	



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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	
1995-4	Performance Requirements for Radiography Equipment Part 34 60 FR 28323 (Superceded by 1997-5)	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 (Superceded by 2002-2 and 2005-2)	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 (Superceded by 2004-1)	04/01/1999	Final	No Comments 03/22/2001	Colorado has adopted Final Regulations equivalent to RATS ID 2004-1.

<b>RATS ID</b>	<b>NRC Chronology Identification</b>	<b>Date Due for State Adoption</b>	<b>Incoming Package</b>	<b>Outgoing Package</b>	<b>Notes</b>
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	
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>(Superceded 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	08/20/2000	Final	No Comments	

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	Parts 20, 30, 40, 70 62 FR 39057			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.
1998-3	License Term for Medical Use Licenses Part 35 63 FR 31604 <b>(Superceded 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, 32, 35, 36, 39 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	11/20/2001	Final ML042440167	No Comments 01/05/2005 ML050050164	

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	63 FR 50127				
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	
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	R <sup>1</sup> ML 14023A707	No Comments 03/26/2014 ML 14023A698	
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	

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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	
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	R <sup>1</sup> ML14023A707	No Comments 03/26/2014 ML14023A698	
2006-2	National Source Tracking System - Serialization Requirements Part 32 with reference to Part 20 Appendix E 71 FR 65685	02/06/2007	Final ML13176A122	No Comments 09/16/2013 ML13176A118	Part 20 only  Colorado does not have any licensees subject to these regulations. (See SECY-95-112)
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	

RATS ID	NRC Chronology Identification	Date Due for State Adoption	Incoming Package	Outgoing Package	Notes
			Final ML13176A122	No Comments 09/16/2013 ML13176A118	
*2007-1	Medical Use of Byproduct Material - Minor Corrections and Clarifications Parts 32 and 35 72 FR 45147, 54207	10/29/2010	R <sup>1</sup> ML14023A707	No Comments 03/26/2014 ML14023A698	
*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	R <sup>1</sup> ML14023A707	No Comments 03/26/2014 ML14023A698	
*2007-3	Requirements for Expanded Definition of Byproduct Material Parts 20, 30, 31, 32, 33, 35, 61, 150 72 FR 55864	11/30/2010	Final ML121150500  R <sup>1</sup> ML14023A707  Final ML13176A122	No Comments 06/21/2012 ML12150A112  No Comments 03/26/2014 ML14023A698  No Comments 09/16/2013 ML13176A118	Part 35 only  Parts 30, 31, 32, 33, 61 & 150  Part 20 only
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	Final ML13162A626	No Comments 08/15/2013 ML13162A614	Definitions associated with RATS ID 2008-1 only

RATS ID	NRC Chronology Identification	Date Due for State Adoption	Incoming Package	Outgoing Package	Notes
			Final ML13176A122	No Comments 09/16/2013 ML13176A118	Part 20 only
2009-1	Medical Use of Byproduct Material – Authorized User Clarification Part 35 74 FR 33901	09/28/2012	Final ML121150500	Comments 06/21/2012 ML12150A112	
*2011-1	Decommissioning Planning Parts 20, 30, 40, 70 76 FR 35512	12/17/2015	Final ML13176A122  Proposed ML14023A707	No Comments 09/16/2013 ML13176A118  Comments 03/26/2014 ML14023A698	Part 20 only  Parts 30, 40 & 70
2011-2	Licenses, Certifications, and Approvals for Materials Licensees Parts 30, 36, 39, 40, 70, and 150 76 FR 56951	11/14/2014			
*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	R <sup>1</sup> ML14023A707	No Comments 03/26/2014 ML14023A698	
2012-2	Advance Notification to Native American Tribes of Transportation of Certain Types of Nuclear Waste Part 71 77 FR 34194	08/10/2015			
2012-3	Technical Corrections Part 30, 34, 40 and 70 77 FR 39899	08/06/2015			

RATS ID	NRC Chronology Identification	Date Due for State Adoption	Incoming Package	Outgoing Package	Notes
2012-4	Requirements for Distribution of Byproduct Material Parts 30, 31, 32, 40 and 70 77 FR 43666	10/23/2015			
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			
2013-2	Distribution of Source Material to Exempt Persons and to General Licensees and Revision of General License and Exemptions, 10 CFR Parts 30, 40, and 70 78 FR 32310	08/27/2016			
N/A	10 CFR 20.1003	N/A	Final ML13162A626	No Comments 08/15/2013 ML13162A614	
N/A	10 CFR Part 40	N/A	R <sup>1</sup> ML13316A107	Comments 01/14/2014 ML13316A058	
N/A	Legislation	N/A	Final ML111080623	Comments 10/24/2011 ML112630034	
N/A	10 CFR Part 20.1403(a), 20.1901 and 20.2104	N/A	Final ML13176A122	No Comments 09/16/2013 ML13176A118	

<sup>1</sup> R stands for revisions to final rule