



**COLORADO**  
Department of Public  
Health & Environment

Dedicated to protecting and improving the health and environment of the people of Colorado

June 20, 2016

Joel Munday, Acting Deputy Director  
Division of Material Safety, State, Tribal  
and Rulemaking Programs  
Office of Nuclear Material Safety and Safeguards  
U.S. Nuclear Regulatory Commission  
T8-E24  
Washington, D.C. 20555-0001

Dear Mr. Munday:

Enclosed is a copy of the final Colorado Rules and Regulations Pertaining to Radiation Control, Part 1, titled General Provisions; Part 3, titled Licensing of Radioactive Materials; and Part 18, titled Licensing of Uranium and Thorium Facilities. In addition to the enclosed final "as published" rules which became effective February 14, 2016, we have also included a copy of the last draft (with changes shown as strike-out and bold text) as reviewed and adopted by the Colorado Board of Health on December 16, 2015.

The final amendments to Parts 1, 3, and 18 incorporated changes as a result of statutory changes to Colorado's enabling legislation (the Colorado Radiation Control Act) which occurred in 2014 and 2015. Additionally, the final rules have incorporated NRC regulatory changes originating from the NRC Regulatory Action Tracking System (RATS), and NRC comments. Table A, of Attachment 1 identifies the RATS related items that have been addressed in the final rule amendments. Table B of Attachment 2 identifies the NRC comments that have been addressed in the final rule amendments.

We believe that adoption of the amendments to the Parts 1, 3, and 18 rules satisfies the compatibility and health and safety categories established in the Office of Federal and State Materials and Environmental Programs (FSME) Procedure SA-200.

If you have any questions, please feel free to contact me at 303-692-3403 or James Jarvis of my staff at 303-692-3454 or [james.jarvis@state.co.us](mailto:james.jarvis@state.co.us).

Sincerely,

Jennifer T. Opila, MPA  
Radiation Program Manager



Enclosures:

Attachment 1;

Attachment 2;

Colorado Part 1 final published rule (effective February 14, 2016);

Colorado Part 1 (Draft 2, 11/02/15),

Colorado Part 3 final published rule (effective February 14, 2016);

Colorado Part 3 (Draft 1, 10/07/15),

Colorado Part 18 final published rule (effective February 14, 2016);

Colorado Part 18 (Draft 2, 11/02/15),

Cc: [AgreementStateRegs.Resource@NRC.gov](mailto:AgreementStateRegs.Resource@NRC.gov); and

Michelle Beardsley, State Regulation Review Coordinator, Agreement State Programs  
Branch, Office of Nuclear Material Safety and Safeguards, U.S. Nuclear Regulatory  
Commission (via email only on June 20, 2016)

Attachment 1  
 Joel Munday, Acting Deputy Director  
 U.S. Nuclear Regulatory Commission  
 June 20, 2016

Table A. NRC RATS items 2011-2, 2012-4, 2013-1, 2013-2 incorporated into final Colorado rules.

CFR	TITLE	COLORADO REGULATORY PART AND SECTION
<b>RATS 2011-2</b>		
30.4, 36.2, 40.4, 70.4, 150.31(b)(3)(iv)(A)	Definitions: "Commencement of construction"; "Construction"	Part 1, Section 1.2.2
<b>RATS 2012-4</b>		
31.3	Certain devices and equipment	Part 3, Section 3.6.1 [Deletion of provision]
30.32(g)	Application for specific licenses	Part 3, Section 3.8.9
32.51(a)(6)	Byproduct material contained in devices for use under § 31.5; requirements for license to manufacture, or initially transfer	Part 3, Section 3.12.4.1(5)
32.101	Schedule B- prototype tests for luminous safety devices for use in aircraft	Part 3, Section 3.12.5.1(2) [Deletion of regulatory reference]
32.102	Schedule C— prototype tests for calibration or reference sources containing americium-241 or radium-226	Part 3, Section 3.12.6.1(2) [Deletion of regulatory reference]
32.103	Schedule D- prototype tests for ice detection devices containing strontium-90	Part 3, Section 3.12.9.1(2) [Deletion of regulatory reference]
32.210(a)	Registration of product information	Part 3, Section 3.12.14.1
32.210(d)	Registration of product information	Part 3, Section 3.12.14.4(2)
32.210(e)	Registration of product information	Part 3, Section 3.12.14.5
32.210(g)	Registration of product information	Part 3, Section 3.12.14.7
32.210(h)	Registration of product information	Part 3, Section 3.12.14.8
32.211	Inactivation of certificates of registration of sealed sources and devices	Part 3, Section 3.12.15
30.15(a)(2)	Certain items containing byproduct material	Part 3, Sched. 3C, 3C.11.2
30.19(b)	Self-luminous products containing tritium, krypton-85, or promethium-147	Part 3, Sched. 3C, 3C.12.2
30.20	Gas and aerosol detectors containing byproduct material	Part 3, Sched. 3C, 3C.13 (and subsections)
30.22	Certain industrial devices	Part 3, Sched. 3C, 3C.15 (and subsections)

<b>RATS 2013-1</b>		
	Definition "Carrier"	Part 1, Section 1.2.2
30.13 [also NRC Ltr 04/13/15]	Carriers	Part 3, Section 3.7
<b>RATS 2013-2</b>		
40.4	Definition "Unrefined and unprocessed ore"	Part 1, Section 1.2.2
40.22(a)	Small Quantities of Source Material	Part 3, Section 3.5.1
40.22(a)(1)	Small Quantities of Source Material	Part 3, Section 3.5.1.1
40.22(a)(2)	Small Quantities of Source Material	Part 3, Section 3.5.1.2
40.22(a)(3)	Small Quantities of Source Material	Part 3, Section 3.5.1.3
40.22(a)(4)	Small Quantities of Source Material	Part 3, Section 3.5.1.4
40.22(b)	Small Quantities of Source Material	Part 3, Section 3.5.2
40.22(b)(1) through (b)(3)	Small Quantities of Source Material	Part 3, Section 3.5.2.1 through 3.5.2.3
40.22(b)(4)	Small Quantities of Source Material	Part 3, Section 3.5.2.4
40.22(b)(5)	Small Quantities of Source Material	Part 3, Section 3.5.2.5
40.22(c)	Small Quantities of Source Material	Part 3, Section 3.5.3
40.22(d)	Small Quantities of Source Material	Part 3, Section 3.5.4
40.22(e)	Small Quantities of Source Material	Part 3, Section 3.5.5
40.54	Requirements for license to initially transfer source material for use under the 'small quantities of source material' general license	Part 3, Section 3.22.6
40.55(a)	Conditions of licenses to initially transfer source material for use under the 'small quantities of source material' general license: Quality control, labeling, safety instructions, and records and reports	Part 3, Section 3.22.7, 3.22.7.1
40.55(b)	<i>Conditions of licenses...</i> [Same Title as for 40.55(a)]	Part 3, Section 3.22.7.2
40.55(c)	<i>Conditions of licenses...</i> [Same Title as for 40.55(a)]	Part 3, Section 3.22.7.3
40.55(d)	<i>Conditions of licenses...</i> [Same Title as for 40.55(a)]	Part 3, Section 3.22.7.4
40.55(e)	<i>Conditions of licenses...</i> [Same Title as for 40.55(a)]	Part 3, Section 3.22.7.5
40.13(c)	Unimportant quantities of source material	Part 3, Schedule 3C
40.13(c)(2)(i)	Unimportant quantities of source material	Part 3, Sched. 3C, 3C.2.1
40.13(c)(2)(iii)	Unimportant quantities of source material	Part 3, Sched. 3C, 3C.2.2
40.13(c)(5)(i)	Unimportant quantities of source material	Part 3, Sched. 3C, 3C.5.1 [Deletion of provision]
40.13(c)(5)(i)-(ii)	Unimportant quantities of source material	Part 3, Sched. 3C, 3C.5.1, 5.2 [Footnotes 14, 15]
40.13(c)(5)(ii)-(iv) [Renumber]	Unimportant quantities of source material	Part 3, Sched. 3C: renumbered - 3C.5.1, 3C.5.2, 3C.5.3

40.13(c)(7)	Unimportant quantities of source material	Part 3, Sched. 3C, 3C.7, 3C.7.1, 3C.7.2
40.13(d)	Unimportant quantities of source material	Part 3, Sched. 3C, 3C.8 [Deletion of provision]
40.13(c)(10) 40.13(c)(10)(ii)	Unimportant quantities of source material	Part 3, Sched. 3C, 3C.10, 3C.10.1  [NOTE: A provision equivalent to 40.13(c)(10)(i) is excluded from Colorado rule as the date specified in federal rule has passed.]

Attachment 2  
 Joel Munday, Acting Deputy Director  
 U.S. Nuclear Regulatory Commission  
 June 20, 2016

Table B. Rule changes addressing NRC comments applicable to Parts 1, 3, 18 in letters dated September 29, 2015, April 13, 2015, November 19, 2014, March 26, 2014, January 14, 2014, January 3, 2013, June 28, 2012, October 24, 2011, and October 13, 2011.

CFR Cross-reference  [Bracketed numbers refer to the item number in NRC letter]	State Section	Description/purpose of the change to address NRC comment
<p><b>NRC LETTER DATED September 29, 2015</b>  <i>NOTE: Comments [1] and [2] of the September 29, 2015 are not applicable to Parts 1, 3, or 18 and will be addressed in rulemaking for other regulatory parts that are currently in process.</i></p>		
<p>[3]            40.22(a)            [RATS 2013-2]</p>	<p>Part 3, Section 3.5.1</p>	<p>Colorado incorporated the word "Federal" in the final rule as requested by NRC.</p>
<p>[4]            40.4            Part 40,            Appendix A</p>	<p>Part 18, Section 18.2</p>	<p>Colorado deleted the definition "long term care" as requested by NRC.</p> <p>In the final rule, Colorado also deleted the definition "Active maintenance" in its entirety which contained/used the phrase "long term care".</p> <p>In the September 29, 2015 correspondence, NRC requested that "long term care" be removed from the definition of "Compliance period". <u>Colorado disagrees with this comment and requests that NRC reevaluate the comment.</u> The definition "Compliance period" is found in Appendix A to 10 CFR Part 40 and is <u>equivalent to the definition found in Colorado Part 18.</u> The NRC definition for compliance period in Appendix A to Part 40 also <u>includes the phrase "long-term care"</u> and is a compatibility category A item.</p> <p>In the September 29, 2015 correspondence, NRC requested that "long term care" be removed from Section 18.6.1.2 of Part 18. <u>Colorado disagrees with this comment and</u></p>

		<p><u>requests that NRC reevaluate the comment.</u> The term “long-term care” is used in the CRCPD model regulations Part U, Section U.9b in a manner similar to that found in Section 18.6.1.2 of Colorado Part 18. In NRC correspondence dated April 16, 2015 to the CRCPD, NRC did not provide any comments regarding SSR Part U or the specific provisions or language of U.9.</p> <p>[Note that NRC uses the phrase “long term care” multiple times in 10 CFR Part 40, including 40.1, 40.2a, 40.3, 40.20, 40.27, 40.28, and Appendix A of Part 40.]</p>
[5] 40.4 Part 40, Appendix A	Part 18, Appendix A, Criterion 6(7).	<p>Colorado deleted the definition/phrase “post closure” from Section 18.2 as requested by NRC.</p> <p>In the September 29, 2015 correspondence, NRC also requested that “post closure” be removed from Criterion 6(7) of Appendix A of Part 18.</p> <p><u>Colorado disagrees with this comment and requests that NRC reevaluate the comment.</u> Colorado uses the term “post-closure” in Criterion 6(7) in a provision equivalent to that found in Criterion 6 of Appendix A of 10 CFR Part 40. Similarly, the term “post-closure” is used in Criterion 6(7) of the final 2015 SSR U model regulation for which NRC did not provide specific comments.</p> <p>[Note that Criterion 6(7) of 10 CFR 40 has a compatibility “C” designation.]</p>
<p><b>NRC LETTER DATED April 13, 2015</b>  NOTE: Comments [2], [3], [4] of the April 13, 2015 NRC correspondence are not applicable to Parts 1, 3, or 18 and will be addressed in rulemaking for other regulatory parts.</p>		
[1] 30.13 [RATS 2013-1]	Part 3, Section 3.7	Incorporated omitted provision pertaining to exemption of certain carriers
<p><b>NRC LETTER DATED November 19, 2014</b></p>		
[1] Appendix A, Part 40, Criterion 9	The missing provisions have been incorporated into Draft rules Parts 3, and 18 as	Incorporated missing provisions from Appendix A, Part 40, Criterion 9

	<p>follows:</p> <p>See 18.5.6 for Criterion 9(a). See 18.5.7 for Criterion 9(d).</p> <p>See 3.9.5.7 for Criterion 9(e) See 3.9.5.8 for Criterion 9(f) See 3.9.5.9 for Criterion 9(g) See 3.9.5.10 for Criterion 9(h) See 3.9.5.11 for Criterion 9(i)</p>	
[2] Appendix A, Part 40, Financial Criteria, Criterion 10	Consistent with changes to Colorado's Radiation Control Act, a 1% interest rate is incorporated in 3.9.5.10(4) in draft Part 3	Colorado has amended Part 3 to provide for an assumed interest rate of 1% (for long term site surveillance), consistent with NRC rule
<p><b>NRC LETTER DATED March 26, 2014</b> NOTE: Comments [4], and [5] of the March 26, 2014 NRC correspondence are not applicable to Parts 1, 3, or 18 and will be addressed in future correspondence/rulemaking.</p>		
[1] 40.4 Definition: <i>Active maintenance</i>	No change to 18.2 definition for "Active maintenance"	No change. NRC rescinded comment pertaining to "Active maintenance" definition
[2] Appendix A, Part 40, Criterion 9	*SEE RESPONSE TO LETTER DATED 11/19/14 ABOVE*	
[3] Appendix A, Part 40, Financial Criteria, Criterion 10	*SEE RESPONSE TO LETTER DATED 11/19/14 ABOVE*	
<p><b>NRC LETTER DATED January 14, 2014</b></p>		
[1] 40.4 Definition: <i>Active maintenance</i>	18.2 - The definition for "Active maintenance" is deleted from Section 18.2.	Although NRC rescinded the comment pertaining to the "Active maintenance" definition in subsequent correspondence (see NRC letter dated 03/26/16), due to other considerations, Colorado has removed this definition from Part 18. (Also see comments above specific to NRC letter dated 09/29/15)
[2] 40.4 Definition: <i>Residual radioactive material</i>	Refer to the current 3.16.2.3, 3.16.2.5, 3.16.2.6, 3.16.6.2	"Residual radioactive material" was amended in a prior revision to Part 3.
[3] 40.4 Definition:	18.2 and other areas throughout Part 18	Added definition for "Uranium milling"



<i>Uranium milling</i>		In lieu of adding the phrase "...byproduct material as in definition (2) of 1.2.2 of these regulations", Colorado has instead added the type 2 byproduct material definition to 18.2 of Part 18. This approach is similar to that used in 10 CFR Part 40.
[4] Part 40, Appendix A, <i>II. Financial Criteria</i>	3.9.5.10(4)	Consistent with changes to Colorado's Radiation Control Act, a 1% interest rate is assumed for long term care surety, consistent with NRC rule.  Colorado has also clarified that DOE will be responsible for site surveillance.
[5] Part 40 Appendix A	Part 18, Appendix A (introduction);	SEE PRIOR COMMENTS - type 2 byproduct material definition added to Part 18
[6] Part 40 Appendix A Closure	18.2 (Definition for "Closure")	SEE PRIOR COMMENTS - type 2 byproduct material definition added to Part 18
[7] Part 40 Appendix A Disposal area	18.2 (Definition for "Disposal area")	SEE PRIOR COMMENTS - type 2 byproduct material definition added to Part 18
[8] Part 40 Appendix A Existing portion	18.2 (Definition for "Existing portion")	SEE PRIOR COMMENTS - type 2 byproduct material definition added to Part 18
[9] Part 40 Appendix A Leachate	18.2 (Definition for "Leachate")	SEE PRIOR COMMENTS - type 2 byproduct material definition added to Part 18
[10] Part 40 Appendix A Liner	18.2 (Definition for "Liner")	SEE PRIOR COMMENTS - type 2 byproduct material definition added to Part 18
[11] Part 40 Appendix A Operation	18.2 (Definition for "Operation")	SEE PRIOR COMMENTS - type 2 byproduct material definition added to Part 18
[12] Part 40 Appendix A, I. Technical Criteria	Part 18, Appendix A, Criterion 5	Cross-reference to Criterion "7A" was corrected to Criterion "7" as requested.
[13] Part 40 Appendix A, I. Technical Criteria	Part 18, Appendix A, Criterion 5A	SEE PRIOR COMMENTS - type 2 byproduct material definition added to Part 18
[14] Part 40	Part 18, Appendix A, Criterion 5B	Cross-reference to Criterion "7A" was corrected to Criterion "7" as requested.

Appendix A, I. Technical Criteria		
[15] Part 40 Appendix A, I. Technical Criteria	Part 18, Appendix A, Criterion 5E	Cross-reference to Criterion "7" was corrected to 18.3.3 as requested.
[16] 10 CFR 150.31	18.6	Colorado's final Part 18 rule was amended, consistent with the enabling legislation and provides for public meetings, cross-examination, and hearings.
<p><b>NRC LETTER DATED January 3, 2013</b>  NOTE: Comments [1] through [5], [7], and [8] of the January 3, 2013 NRC correspondence have been addressed through <u>prior</u> review and revisions to Colorado Parts 3, and Part 4. The final Part 4 rule was reviewed by NRC in correspondence dated 09/06/13. The final Part 3 rule was reviewed by NRC in correspondence dated 11/19/14.</p>		
[6] Appendix A to Part 40	Part 18, Appendix A	Colorado is submitting its final Appendix A for review.
[7] 70.25(e)	SEE ABOVE COMMENTS	
[8] 70.36	SEE ABOVE COMMENTS	
<p><b>NRC LETTER DATED June 28, 2012**</b>  (**Restates remaining items from October 13, 2011 letter)  Comments [1] through [16] of the June 28, 2012 NRC correspondence have been addressed through prior review and revisions to Colorado Parts 3, Part 4, and Part 7. The final Part 3 rule was reviewed by NRC in correspondence dated 11/19/14. The final Part 4 rule was reviewed by NRC in correspondence dated 09/06/13. The final Part 7 rule was reviewed by NRC in correspondence dated 06/21/12.</p>		
[17] 40.2	Part 18, Section 18.1.5	The final rule contains added language to clarify that the Department of Natural Resources, Division of Reclamation, Mining and Safety is not implementing requirements of the Atomic Energy Act.
[18] 40.2a(b)	Part 18, Section 18.1.3	The final rule deletes the phrase "unless that program fails to accomplish remedial action" to ensure consistency with the 274b agreement.
[19]	COMMENT RESCINDED BY NRC	
[20] 40.4,	Part 18, Section 18.2	Definition for "Long-term care" deleted from Section 18.2.

Appendix A		
[21] 40.4; Appendix A	Part 18, Section 18.2	Definition for "Post closure" deleted from Section 18.2.
[22] 40.4	Part 18, Section 18.2	Definition for "Residual radioactive material" added consistent with that found in 10 CFR Part 40.
[23] 40, Appendix A	Part 18, Section 18.2	Definition for "surveillance" deleted from Section 18.2.
[24] 40.4	Part 18, Section 18.2	Definition for "uranium milling" equivalent to that of 10 CFR Part 40.4 added to Part 18.
[25] 40.46	NO CHANGE - COMMENT WITHDRAWN BY NRC	
[26] 40, Appendix A	Part 18, Section 18.2	Definition in 18.2 for "available radon barrier technology" modified to "available technology". With this change, the definition is equivalent to that found in 10 CFR Part 40, Appendix A.
[27] 40, Appendix A, II. Financial Criteria, Criterion 10	Part 3, Section 3.9.5.10	Interest rate changed; responsibility for site surveillance clarified - SEE PRIOR COMMENTS FOR NRC LETTER DATED 11/19/14.
[28] 40, Appendix A, Criterion 11	Part 18, Appendix A, Criterion 9C, 9D	The final rule deletes references to the "Department" in Criterion 9 of Appendix A, consistent with 10 CFR Part 40, Criterion 11.
<b>NRC LETTER DATED October 24, 2011</b>		
[1]	Enabling legislation, 25-11-201, CRS	As requested by NRC, the term "Radioactive waste" was amended in the enabling legislation.
[2]	Part 1, 1.2.2 (Definitions), and enabling legislation	As requested by NRC, "Classified material" was deleted from the enabling legislation (25-11-201, CRS) and in the Part 1, 3, and 18 rules.
[3]	Enabling legislation, 25-11-101, and 25-11-201, CRS	As requested by NRC, the two terms for "Radioactive" were amended in the enabling legislation.
[4]	Enabling legislation, 25-11-101, and 25-11-201 CRS; and Part 1, 1.2.2.	As requested by NRC, definitions for byproduct, source, and special nuclear material were added to the enabling legislation. Similar definitions were modified in Part 1 to match the statutory changes.

[5]	Enabling legislation, 25-11-109, CRS	As requested by NRC, the provisional license provision was deleted from the enabling legislation (25-11-109, CRS).
[6]	Enabling legislation, 25-11-110, CRS; and Part 3, Section 3.9.5.15	As requested by NRC, the enabling legislation provision pertaining to the assumed real interest rate for a long-term care warranty was reduced to 1 %.