



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

April 20, 2017

Mr. Kyle Wendtland, Administrator  
Wyoming Department of Environmental Quality  
Land Quality Division  
200 W. 17th Street  
Cheyenne, WY 82002

Dear Mr. Wendtland:

We have conducted a completeness review of your draft application package (draft application) for a limited Section 274b. Atomic Energy Act of 1954, as amended, Agreement for source material involved in uranium and thorium milling and associated 11e. (2) byproduct material dated October 28, 2016. We reviewed the following draft application elements: Legal Elements, Regulatory Requirements Program Elements, Licensing Program Elements, Inspection Program Elements, Enforcement Program Elements, Technical Staffing and Training Program Elements, and Event and Allegation Response Program Elements. The completeness review was conducted in accordance with the Commission Policy Statement, "Criteria for Guidance of States and NRC in Discontinuance of NRC Regulatory Authority and Assumption thereby by States through Agreements," [Effective January 23, 1981 (46 FR 7540), and amended by Policy Statements published July 16, 1981 (46 FR 36969) and July 21, 1983 (48 FR 33376)] that provides criteria for new agreements and an Office of Nuclear Material Safety and Safeguards (NMSS) procedure for processing new agreements (NMSS Agreement State Procedure Approval, SA-700, "Processing an Agreement" (SA-700)). The completeness review was performed by an inter-office staff team identified in the Enclosure.

The completeness review was conducted to determine whether the draft application contained sufficient information to enable staff to perform a detailed review upon receipt of Wyoming's final application package. The team found that the draft application provided information on the appropriate major program elements for a uranium and thorium milling program and reflected significant effort on the part of your staff. The team also identified several areas where additional clarifying information or documentation is needed. Our comments are contained in Enclosure 1. For your reference, the comments are correlated to the relevant sections of your draft application or prior NRC letters commenting on Wyoming's proposed regulations. Please note that our comments only address those elements where additional information or revisions are needed. The team concluded other program elements contained sufficient information to support a detailed review.

We would like to thank the Wyoming Attorney General's Office for addressing our prior comments regarding Wyoming's Civil Trespass to Collect Data law, Wyoming Enrolled Act No. 61 (Data Collection Trespass Law). Their response letter addresses our comments by explaining how the Data Collection Trespass Law would be implemented and describes any potential impacts the law would have on the State's uranium recovery program handling of allegations or enforcement.

K. Wendtland

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We would welcome an opportunity to meet with you to discuss our comments (in particular, with regard to comment 1 and comment 58 in the enclosure), and answer any questions concerning the review, or additional steps involved in processing Wyoming's final request for a 274b Agreement. Please contact Paul Michalak at (301) 415-5804, or Stephen Poy at (301) 415-7135 to arrange a meeting or conference call.

Sincerely,

***/RA/***

Daniel S. Collins, Director  
Division of Material Safety, State, Tribal  
and Rulemaking Programs  
Office of Nuclear Material Safety  
and Safeguards

Enclosure:  
Comments on the Draft Wyoming  
Application for a Limited Agreement  
dated October 2016 and on Previously  
Reviewed Regulations

SUBJECT: LETTER TO WYOMING DEQ RE: RESPONSE TO DRAFT AGREEMENT STATE APPLICATION REQUEST (APRIL 20, 2017)

DISTRIBUTION:

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Wyoming File

Response to Incoming Document: ML16300A294

**ML17062A962**

<b>OFC</b>	MSTR	MSTR	OGC	MSTR
<b>NAME</b>	SPoy	PMichalak	JWO for TCampbell	DCollins
<b>DATE</b>	4/3/17	4/17/17	4/5/17	4/20/17

**OFFICIAL RECORD COPY**

Wyoming has been working with the Nuclear Regulatory Commission (NRC) since 2014 on the process to become an NRC Agreement State. As part of this process the Wyoming Department of Environmental Quality (WDEQ) sent a draft application on October 26, 2016. The draft application included proposed regulations, programmatic procedures, statutes, and other program details. The draft application was sent with the hope that comments could be received prior to the Environmental Quality Council Meeting (EQC) such that any comments in regards to the regulations could be addressed before the regulations became finalized. On April 20, 2017, WDEQ received NRC comments on the draft application. The comments were directed to the whole program, but WDEQ removed only the pertinent comments pertaining to the regulations for consideration by the EQC. Please find the excerpted relevant comments below.

5. On page 33 of 1080, Wyoming Statute 35-11-103(e)(viii), the definition states, “‘Operation’ means all of the activities, equipment, premises, facilities, structures, roads, rights-of-way, waste and refuse areas excluding uranium mill tailings and mill facilities, within the Nuclear Regulatory Commission license area, storage and processing areas, and shipping areas used in the process of excavating or removing overburden and minerals from the affected land or for removing overburden for the purpose of determining the location, quality or quantity of a natural mineral deposit or for the reclamation of affected land.”

Please clarify what the phrase “excluding mill tailings and mill facilities, within the Nuclear Regulatory Commission license area” means in terms of the Wyoming’s implementation of NRC regulatory requirements. Would the definition of “operation” be revised if Wyoming assumes regulatory authority over source material involved in milling and the associated 11e.(2) byproduct material? Please also clarify how this exclusion affects the other definitions in this section.

13. On page 266 of 1080, Wyoming Statute 35-11-2003(e), it states that the NRC will retain regulatory authority over independent or commercial laboratory facilities that are handling 11e.(2) byproduct material, but does not mention source material involved in uranium milling.

Please clarify if Wyoming intends to have regulatory authority over the source material involved in milling at independent or commercial laboratory facilities or if there will be revisions to the legislation so that the NRC would be the sole regulatory authority over these facilities.

17. On page 268 of 1080, Wyoming Statute 35-11-2004(b), it states, “[P]rior to terminating any license the administrator of the land quality division shall obtain a determination from the nuclear regulatory commission that the licensee has complied with the commission's decontamination, decommissioning, disposal and reclamation standards.”

Partial site release for ISR facilities is common. If an amendment to a future Wyoming materials license resulted in shrinkage of an ISR licensed boundary (i.e.,

partial release), the NRC review team should have the ability to review a partial site release to make a determination that all applicable standards and requirements pertaining to such material have been met consistent with SA-900. Please provide Wyoming's process for handling partial site releases

29. On page 333 of 1080, Article II, Section B.1, it states, “[P]rior to the termination of a State license for such byproduct material, or for any activity that results in the production of such material, the Commission shall have made a determination that all applicable standards and requirements pertaining to such material have been met.”

Same comment as (17) above. Partial site release for ISR facilities is common. If an amendment to a future Wyoming materials license resulted in shrinkage of an ISR licensed boundary, the NRC review team should have the ability to review a partial site release to make a determination that all applicable standards and requirements pertaining to such material have been met consistent with SA-900. Please describe your process for handling partial site releases. Please include this as a part of Wyoming licensing procedures.

32. On page 345 of 1080, Chapter 1, Section 2, it states, “[I]t is the purpose of these rules to state such requirements as shall be applied in the use of byproduct material and source material involved in the extraction and concentration of uranium and thorium in source material and ores at uranium and thorium milling facilities (referred throughout these rules as licensed material) such that the Department can ensure the protection of the public health and safety to all persons at, or in the vicinity of, the place of use, storage, or disposal.”

This provision is inconsistent with the Wyoming legislation under the provisions in Wyoming Statute 35-11-2001 and the AEA definition of byproduct material in Section 11e.(2).

Please revised the sentence to state “... extraction or concentration of uranium or thorium ...and the management and disposal of 11e.(2) byproduct material” to be consistent with the Wyoming legislation and the AEA definition of byproduct material in Section 11e.(2). These changes must be made throughout the document for consistency.

33. On page 345 of 1080, Chapter 1, Section 3, it states, “[E]xcept as otherwise specifically provided, these rules apply to all persons who receive, possess, use, offer and receive for transfer, own, or acquire any byproduct material or source material from the extraction and concentration of source material at uranium and thorium milling facilities. Nothing in these rules shall apply to any person to the extent such person is subject to regulation not relinquished by the United States Nuclear Regulatory Commission (NRC). These rules do not govern the mining or removal of source material in its natural state.”

This provision is inconsistent with the language in the Wyoming legislation under the provisions in Wyoming Statue 35-11-2001 and the AEA definition of byproduct material in Section 11e.(2).

Please revise the sentence to state, "... extraction or concentration of uranium or thorium..." to be consistent with the Wyoming legislation and the AEA definition of byproduct material in Section 11e.(2). Please also add "... and the management and disposal of 11e.(2) byproduct material..."

34. On page 368 of 1080, Chapter 1, Section 12(c), it states, "[A]dditional records requirements are specified elsewhere in these rules. If the record retention period is not specified, the record shall be maintained for a period of three years."

The NRC review team notes records are to be retained for three years, unless otherwise specified in these rules. The NRC review team was unable to verify where rules are located within the draft application that would require longer retention periods to be consistent with the NRC's regulatory requirements. Spill records are an example of records that must be maintained until license termination (i.e., a period that may exceed three years) for purposes of restoration and decommissioning in accordance with 10 CFR 40.36(f).

Please identify other Wyoming regulatory provisions related to record retention and, if inconsistent with NRC requirements, make the appropriate revisions to these Wyoming regulations.

35. On page 369 of 1080, Chapter 2, Section 2, it states, "[T]he Department may inspect, enforce, and penalize both licensees and the unlawful possession; use, transfer, ownership or other such unpermitted handling of byproduct material and source material involved in the extraction and concentration of uranium and thorium at uranium and thorium facilities in accordance with these rules, the Act, and applicable state and federal laws."

Please revise the sentence to clarify that the Department has authorization over both licensees and non-licensees by adding the phrase "non-licensees for the" before "unlawful possession. The sentence should read, "[T]he Department may inspect, enforce, and penalize both licensees and the unlawful possession; use, transfer, ownership or other such unpermitted handling of byproduct material and source material involved in the extraction or concentration of uranium or thorium at uranium and thorium facilities in accordance with these rules, the Act, and applicable state and federal laws."

36. On page 370 of 1080, Chapter 2, Section 5(b), it states, "[L]icensee initiative for self-identification and correction of problems is encouraged. The Department will generally not issue Notices of Violations for a violation that:
- a. Was identified by the licensee;
  - b. Results in low or *no* health and safety consequences;
  - c. Was documented, in writing, for review by the Department;
  - d. Was or will be corrected, including measures to prevent recurrence, within ninety (90) days, or another time frame approved by the Department; and
  - e. Was not a violation that could reasonably be expected to have been prevented by the licensee's corrective action for a previous violation?"

Wyoming regulations provides a detailed listing for situations that would not generally receive a Notice of Violation. Such provisions would be better in guidance, such as an enforcement policy, to provide greater flexibility to the regulatory agency.

To aid the program, the NRC review team recommends deleting this section from the regulations and incorporating the above list in guidance.

37. On page 370 of 1080, Chapter 2, Section 5(c) is missing.

Please provide missing section.

38. On page 370 of 1080, Chapter 2, Section 5 (d) states, “[L]icensees are not ordinarily cited for violations resulting from matters outside of their control, such as equipment failures that were not avoidable by reasonable quality assurance measures or management controls.”

Wyoming regulations state that management controls would be listed as a reason for not citing a violation. Such provisions would be better in guidance, such as an enforcement policy, to provide flexibility to the regulatory agency.

To aid the program, the NRC review team recommends deleting this section from the regulations. Please also explain why equipment failures in these situations would not be ordinarily cited for violations because they are “outside” the control of the licensee.

39. On page 374 of 1080, Chapter 4, Section 1, it states, “[T]his Chapter establishes the criteria for issuance and terms of conditions upon which the Department may issue licenses to receive title to, acquire, own, possess, transfer, offer or receive for transport, or deliver any licensed material. This Chapter also governs the operation of facilities for handling and disposing of licensed material. This Chapter also provides requirements for decommissioning and the long-term care and maintenance of byproduct material. Unless otherwise specified, the requirements of this Chapter are in addition to, and not in substitution for, other applicable requirements of these rules.”

This provision is inconsistent with the NRC regulations that also provides regulatory authority over the “use” of radioactive material. In 10 CFR 40.3, it states, “[A] person subject to the regulations in this part may not receive, possess, use, transfer, provide for long-term care, deliver or dispose of byproduct material of residual radioactive material. . .”

Please add the word “use” before “transfer” such that it is consistent with NRC regulations. The sentence should read, “[T]his Chapter establishes the criteria for issuance and terms of conditions upon which the Department may issue licenses to receive title to, acquire, own, possess, use, transfer, offer or receive for transport, or deliver any licensed material.”

40. General comment: Please add the word “use” before “transfer” such that it is consistent with NRC regulations (as referenced above in 10 CFR 40.3) throughout these documents. The related sentences should read, “[T]his Chapter establishes

the criteria for issuance and terms of conditions upon which the Department may issue licenses to receive title to, acquire, own, possess, use, transfer, offer or receive for transport, or deliver any licensed material.”

41. On page 374 of 1080, Chapter 4, Section 2(b), it states, “[T]his Chapter governs byproduct material located at a site where milling operations are no longer active, if such site is not covered by the remedial action program of Title I of the Uranium Mill Tailings Radiation Control Act (UMTRCA) of 1978 (42 U.S.C. §§ 7901 *et seq.*). This Chapter does not establish criteria and procedures for the issuance of licenses for materials covered under Title I of UMTRCA of 1978, unless that program fails to accomplish the remedial action. Disposal at a uranium or thorium processing site of licensed material which is not byproduct material must not inhibit reclamation of the tailings impoundment or the ability of the United States Government to take title to the impoundment as long-term custodian.”

This requirement indicates that Wyoming can regulate UMTRCA Title I sites if the current program is failing in its remedial actions. This is in conflict with Wyoming’s statements in its draft 274b. Agreement which states that the NRC has regulatory authority over UMTRCA Title I sites.

Please revise this sentence so it is clear the NRC retains authority over UMTRCA Title I sites even if the remedial action fails. Please strike out the phrase “..., unless that program fails to accomplish the remedial action.” The revised sentence should read, “[T]his Chapter does not establish criteria and procedures for the issuance of licenses for materials covered under Title I of UMTRCA of 1978.”

Chapter 4, Section 2(b) also states, “[D]isposal at a uranium or thorium processing site of licensed material which is not byproduct material must not inhibit reclamation of the tailings impoundment or the ability of the United States Government to take title to the impoundment as long-term custodian.” Please explain what licensable material Wyoming expects to regulate with regard to disposal at a uranium or thorium processing site which is not byproduct material. This material appears to be outside of the scope of material defined in the Agreement.

42. On page 374 of 1080, Chapter 4, Section 4 is Wyoming’s only regulatory section containing provisions regarding deliberate misconduct in the chapters covering the uranium recovery program. This section does not cover regulatory requirements in 10 CFR 40.10 or 71.8. In particular, the provisions do not reference Chapter 9 “Transportation,” and the provisions do not contain a section regarding deliberate misconduct that is equivalent to 10 CFR 71.8.

Please either add deliberate misconduct regulatory provisions in Chapter 9 that are equivalent to 10 CFR 71.8 or revise the regulatory provisions in Chapter 4 to also be equivalent to 10 CFR 71.8 and then refer to these provisions in Chapter 9.

43. On page 376 of 1080, Chapter 4, Section 6(a), it states, “[A]ny person is exempt from this Chapter to the extent that such person receives title to, acquires, owns, possesses, uses ; or transfers source material in any chemical mixture, compound,



solution, or alloy in which the source material is by weight less than one-twentieth of one percent (0.05 percent) of the mixture, compound, solution, or alloy.”

Please revise the sentence to be consistent with 10 CFR 40.13(a) to add language stating that the exemption does not apply to Australian-obligated source material, or byproduct materials as defined in this part 10 CFR 40.13(a) is Compatibility Category B. This program element has significant transboundary implications and the element should be essentially identical to the NRC’s.

44. On page 376 of 1080, Chapter Section 6(d), it states, “[T]he Department may, upon its own initiative or the application of an interested person, grant such exemptions from the requirements of this Chapter as authorized by law and, as determined by the Department, will not endanger life, property, the common defense and security, and is otherwise in the public interest.”

Section 274m of the AEA, 42 U.S.C. § 2014(e)(2), as amended, and 10 CFR 40.14 requires that the NRC retain regulatory authority over common defense and security under 274b. Agreements. Please remove the phrase “common defense and security” such that the sentence states, “[T]he Department may, upon its own initiative or the application of an interested person, grant such exemptions from the requirements of this Chapter as authorized by law and, as determined by the Department, will not endanger life, property, and is otherwise in the public interest.”

45. On page 376 of 1080, Chapter 4, Section 8(a), it states, “[A]n application for a specific license may be approved if the Department determines that: (i) The applicant is qualified by reason of training and experience, to use licensed material for the purpose requested in the subject application consistent with the governing statutes and rules and in such a manner as to minimize danger to public health and safety, or property; (ii) The applicant’s proposed equipment, facilities, and procedures are adequate to minimize danger to public health and safety or property; (iii) The applicant satisfies the requirements listed in this Chapter; (iv) The issuance of the license will not be detrimental to the health and safety of the public; and (v) The applicant is financially qualified to conduct the licensed activity; including any required decontamination, decommissioning, reclamation, or disposal.”

This provision is inconsistent with 10 CFR Part 40, Appendix A, Criterion 9 which was adopted by reference in the Wyoming regulations. Please revise to clarify that the application shall include a proposed decommissioning funding plan or a proposal certification of financial assurance for decommissioning, or refer to the financial assurance requirements in Chapter 6.

46. On page 381 of 1080, Chapter 4, Section 9(b)(xiv), it states, “[P]roposal of an acceptable form and amount of financial assurance in accordance with 10 CFR Part 40, Appendix A, Criterion 9; and the Department’s rules;”

The NRC review team cannot determine that the “Department’s rules” contain a provision for a trust or standby trust as required by 10 CFR Part 40, Appendix A, Criterion 9. This provision appears to allow the Department to use a method other than a trust or standby trust for financial assurance.

Please reference the appropriate section of the Department regulations concerning the use of a trust or standby trust for financial assurance or provide a clarification that indicates licensees are required to use a trust or standby trust for financial assurance.

47. On page 382 of 1080, Chapter 4, Section 9, editorial comment: Letter (c) that occurs after (g) and before (h) appears out of order.
48. On page 386 of 1080, Chapter 4, Section 11(f)(v)(C), it states, “[I]f no residual radioactivity attributable to activities conducted under the license is detected or detectable residual radioactivity is below release criteria found in this Chapter, 10 CFR 40 Appendix A, or 10 CFR 20.1401 through 1404, the licensee shall certify in writing that no detectable radioactivity contamination was found or it was below release criteria (Department Form URP-314 or equivalent). The Department will notify the licensee, in writing, of the termination of the license.”

Please provide clarification with regard to when Wyoming will require licensees to meet 10 CFR Part 20 equivalent clean up requirements and when Wyoming will require licensees to meet 10 CFR Part 40 equivalent clean up requirements, particularly with regard to when determination is being made for the release of equipment and structures with detectable contamination. Please specify which guidance documents you will be using to implement these requirements.

49. On page 391 of 1080, Chapter 4, Section 16(k), allows for an applicant to request a subsite or a portion of a licensed area be released for unrestricted use before full license termination. Please describe your process for handling partial site releases.
50. On page 398 of 1080, Chapter 6, Section 4(e), it states, “[P]rior to termination of a license, a licensee shall establish a fund adequate and sufficient to cover the payment of the cost for long-term care and monitoring pursuant to Criteria 9 and 10 of 10 CFR Part 40, Appendix A.”

In 10 CFR Part 40, Appendix A, Criterion 9, it states, “[F]inancial surety arrangements must be established by each mill operator before the commencement of operations to assure that sufficient funds will be available to carry out the decontamination and decommissioning of the mill and site and for the reclamation of any tailings or waste disposal areas. The amount of funds to be ensured by such surety arrangements must be based on Commission-approved cost estimates in a Commission-approved plan, or a proposed revision to the plan submitted to the Commission for approval, if the proposed revision contains a higher cost estimate, for:”

In 10 CFR Part 40, Appendix A, Criterion 10, it states, “[I]f site surveillance or control requirements at a particular site are determined, on the basis of a site-specific evaluation, to be significantly greater than those specified in Criterion 12 (e.g., if fencing is determined to be necessary), variance in funding requirements may be specified by the Commission. In any case, the total charge to cover the costs of long-term surveillance must be such that, with an assumed 1 percent annual real interest rate, the collected funds will yield interest in an amount sufficient to cover the annual costs of site surveillance. The total charge will be adjusted annually prior to actual payment to recognize inflation. The inflation rate to be used is that indicated by the

change in the Consumer Price Index published by the U.S. Department of Labor, Bureau of Labor Statistics.”

Please add language stating that the NRC approves the long-term care fee.

51. On page 400 of 1080, Chapter 6, Section 7(a)(iv), it states, “[F]or sites decommissioned in accordance with 10 CFR 20.1403, 20.1404, and 10 CFR Part 40, Appendix A. Cost estimates for long-term care subsequent to license termination must be sufficient to enable the Department or the DOE to....”

This section inappropriately mixes 10 CFR Part 20 and Part 40 cleanup requirements with regard to cost estimates for long-term care subsequent to license termination.

Please remove the references to the 10 CFR Part 20 requirements.

52. On page 400 of 1080, Chapter 6, Section 7(a)(v), it states, “[U]pon the determination by the Department that disposal, decommissioning, and decontamination requirements have been satisfied, the Department shall transfer the custody of the site and any funds for long-term care to the appropriate regulatory agency assuming long-term care and custody. Such funds include, but are not limited to, sums collected for long-term care and maintenance (i.e., continued site observation, monitoring, and necessary maintenance). Such funds do not include monies held as surety where no default has occurred and the required reclamation or either bonded activity has been performed.”

This provision indicates that Wyoming determines the acceptability of the site and transfers the site to the DOE, which is contrary to Section 274c. of the AEA, 42 U.S.C. § 2014(e)(2), as amended. The NRC must approve the State’s conclusion and establish the Long-Term Care Fee.

Please revise the above regulation to specify that NRC must approve the State’s conclusion and establish the Long-Term Care Fee.

53. On page 401 of 1080, Chapter 7, Section 2(a)(i), it states, “[A]n applicant for or holder of a specific byproduct or source material license issued by the Department pursuant to Chapter 4 of these rules or by the NRC and recognized by the Department; and”

The regulation appears to be inconsistent with the NRC regulatory requirements with regard to reciprocity that Agreement States must recognize other licenses issued by Agreement States. Please revise the provision by deleting “and recognized by the Department” and replace with “another Agreement State,” to clarify recognition of other Agreement State licenses.

54. On page 402 of 1080, Chapter 7, Section 4(c), it states, “[I]ndirect costs will be calculated and allocated to licensees and the Program using the rates and basis for application detailed in the Cognizant Agency Negotiation Agreement, negotiated between the Department and the federal government. Indirect Costs are applied to both Site Specific and Non-Site -specific Direct Costs.”

Please explain how the Cognizant Agency Negotiation Agreement affects the funding

of the Agreement program.

55. On page 405 of 1080, Chapter 8, to aid the program, the NRC review team recommends deleting this chapter regarding risk informed, performance based licensing and inspection and having this information contained in a guidance document to allow the regulatory agency greater flexibility in implementation. Please see NUREG-1569 "Standard Review Plan for In Situ Leach Uranium Extraction License Applications" and NUREG/CR-6733 "A Baseline Risk-informed, Performance-Based Approach for In Situ leach Uranium extraction Licensees" as examples of how the NRC uses risk informed, performance based licensing and inspection in guidance. As a part of guidance this can be periodically revised and updated.
56. On page 410 of 1080, Chapter 9, see prior comments (comment 42) on the need to have an equivalent provision to 10 CFR 71.8 regarding deliberative misconduct.
57. On page 412 of 1080, Chapter 10, Section 2(a), it states, "[T]he Department fully adopts and hereby incorporates by reference 10 CFR §§ 40.20, 40.21, 40.22, and 40.26, revised as of January 1, 2016, unless expressly provided otherwise in these rules. These rules do not include any later amendments or editions of the incorporated matter."

The NRC review team notes that 10 CFR 40.20 includes references to 10 CFR 40.27 and 10 CFR 40.28, which Wyoming is not adopting. Wyoming is not requesting to assume regulatory authority over all the types of facilities referenced in 10 CFR 40.22.

Please revise the sentence to delete reference to 10 CFR 40.20 and make the appropriate revisions regarding 10 CFR 40.22.

### **Additional Regulatory Comments based on Previous Regulations Review Correspondence**

#### **Oct. 3, 2016 NRC letter to Wyoming on Part 20 (ML16123A034)**

The NRC's letter had 33 comments on Part 20. The following comments were previously provided in the NRC's Oct. 3, 2016 letter to Wyoming. The following comments do not refer to any information provided in the draft application. The comments that have been adequately addressed are excluded from this document.

100. Chapter 1, General Provisions, Sections 2-3, 10 CFR 20.1001 and 20.1002  
The use of the terms "source material", "milling", and "byproduct material" will need to be coordinated with the terms as provided in Wyoming's enabling legislation. For example, the NRC comments require revising the legislation to state Wyoming is obtaining authority over "source material involved in milling and the resulting byproduct material as specified in the act."

For simplicity, the NRC review team has used the term "Uranium Recovery Program" throughout this letter to be consistent with the language in the draft application. However, the NRC review team continues to recommend deleting references to uranium "recovery" throughout the statutory provisions, regulations, and referring to

this as the “Uranium Milling Program” instead of the “Uranium Recovery Program” to be consistent with the AEA, UMTRCA and the NRC regulatory provisions that only use the term “milling.” The NRC review team also recommends that the regulations do not use the term in situ “mining” when referring to the activities would be covered under Wyoming’s Uranium “Milling” Program because the NRC has no authority over “mining” activities.

Additionally, the NRC review team recommends using the term “license” instead of “permit” to distinguish between material licenses issued under the radiation control program and permits issued under the Underground Injection Control, or other State programs, that issue permits.

This comment stands and is listed as comment 1 in NRC’s Oct. 3, 2016 letter.

101. Chapter 1, General Provisions, Section 5, Definitions 20.1003 Definitions:  
Byproduct Material

Wyoming omits equivalent requirements for parts (1), (3) and (4) of the definition of byproduct material as defined in 10 CFR 20.1003. Wyoming will need to provide a definition that is consistent with the term “byproduct material” as defined in the enabling legislation.

In addition, Wyoming should include language regarding laboratory facilities. Specifically, the Wyoming definition of byproduct material should exclude the regulation of laboratory facilities by Wyoming to be consistent with Wyoming’s legislative provision in Article 20. Please also see comment number 28 that requests clarification if Wyoming intends for the NRC to retain sole authority over independent and commercial laboratories handling source material involved in uranium milling.

Wyoming needs to submit requirements that meet these essential objectives in order to meet the Compatibility Category H&S designation assigned to 10 CFR 20.1003.

This comment stands and is listed as comment 2 in NRC’s Oct. 3, 2016 letter.

102. Chapter 1, General Provisions, Section 5, Definitions 20.1003 Definitions:

- Comment 4 - Commencement of Construction
- Comment 5 – Construction
- Comment 6 – Contamination
- Comment 7 – Exclusive use
- Comment 8 – Exposure rate
- Comment 9 – Financial assurance
- Comment 14 – Natural Uranium
- Comment 15 – Natural Thorium
- Comment 18 – Radiation Level
- Comment 19 – Radioactivity
- Comment 20 – Recovery
- Comment 21 – Residual Radioactive Material
- Comment 22 – Roentgen
- Comment 24 – Test

- Comment 26 – Uranium Milling

The comments associated to those listed above are being revised. The prior comment said that Wyoming has provided these definitions, but Wyoming will need to resubmit these definitions as a part of other regulations as applicable. However, Wyoming only provided these definitions in Chapter 1 and not in the other uranium recovery program Chapters. The NRC review team recommends adding introductory language in Chapter 1, Section 5 to clarify that the definitions in the section apply to all the Chapters relating to the uranium recovery program unless noted otherwise or Wyoming needs to include definitions in each appropriate regulatory chapter for the uranium recovery program.

The above comment numbers correspond to the comments listed in NRC's Oct. 3, 2016 letter.

103. Chapter 1, General Provisions, Section 5, Definitions 20.1003 Definitions:

- Comment 10 – License
- Comment 11 – Licensee
- Comment 12 – Licensed Material

Wyoming has provided unique reciprocity requirements in their enabling legislation. Wyoming needs to provide a definition of License, Licensee, and Licensed Material that also address its unique reciprocity in the regulations.

The definition of "Licensed Material" also needs to be revised to state "... extraction or concentration of uranium or thorium ...." As mentioned in a prior comment, this description needs to be used consistently throughout the regulations.

The above comments stand and are listed as comments 10, 11, and 12 in NRC's Oct. 3, 2016 letter.

104. Chapter 1, General Provisions, Section 5, Definitions 20.1003 Definitions:

- Comment 16 – Ore

This term is not defined in the NRC regulations. Please explain why this term needs to be defined.

This comment stands and is listed as comment 16 in NRC's Oct. 3, 2016 letter.

105. Chapter 1, General Provisions, Section 5, Definitions 20.1003 Definitions:

- Comment 27 – Waste
- Comment 28 – Licensed Site
- Comment 29 – Ore

The above comments from NRC's Oct 3, 2016 letter are being revised. Definition of waste fails to explicitly exclude byproduct (1), (3), and (4) material from the definition of waste. The definition of "waste" should be revised to exclude byproduct material (1), (3), and (4). The definition also excludes 11e.(2) byproduct material. Please explain how this definition of "waste" interacts with the definition of 11e.(2) byproduct material requiring the regulation of tailings and "waste" associated with the concentration or extraction of uranium or thorium. The definition of "waste" in 10 CFR

20.1003 is Compatibility Category B which requires the State Program element to be essentially identical to that of the NRC.

The definitions of “Licensed Site” and “Ore” are not defined in the NRC regulatory provisions. Please explain why these terms need to be defined and what effect the terms will have on Wyoming’s program.

The above comment numbers correspond to the comments listed in NRC’s Oct. 3, 2016 letter.

106. Chapter 1, General Provisions, Section 5, Definitions 20.1003 Definitions:
- Comment 29 – Operations

Wyoming has provided this definition as a part of their regulations equivalent 10 CFR Part 20. Wyoming will need to resubmit this definition as a part of other regulations as applicable.

The comment stands and corresponds to comment 29 listed in NRC’s Oct. 3, 2016 letter.

Oct. 13, 2016 NRC’s letter to Wyoming on Part 40 and Part 150 (ML16229A259)

The following comments were previously provided in the NRC’s Oct. 13, 2016 letter to Wyoming. The comments do not refer to any information provided in the draft application. The comments that have been adequately addressed are excluded from this document.

107. Chapter 4, Licensing Requirements, Section 1
- Comments 1, 2 and 3 still stand.
  - Comments 7 and 9 still stand.

Comment 1 from NRC’s Oct. 13, 2016 letter:

Wyoming Chapter 4, Section 1(a), it states, “[T]his Chapter establishes the criteria for issuance and terms of conditions upon which the Department may issue licenses to receive title to, acquire, own, possess, transfer, offer or receive for transport, or deliver any source material from recovery or milling and the created byproduct material.”

Wyoming needs to replace the phrase “source material from recovery or milling and the created byproduct material” with the phrase “source material involved in uranium or thorium recovery or milling, and byproduct material as defined in Section 11e.(2) of the Atomic Energy Act of 1954, 42 U.S.C. § 2014(e)(2), as amended.” Wyoming needs to make the above change in order to be consistent with language that will be in their Agreement and enabling legislation.

Comment 2 from NRC’s Oct. 13, 2016 letter:

Wyoming Chapter 4, Section 2(a), it states, “[T]his Chapter establishes performance objectives and procedural requirements applicable to any source material recovery or milling operation and to waste systems for byproduct material including specific technical and financial requirements for siting, construction, operating, monitoring, decontamination, reclamation, and ultimate stabilization, as well as requirements for

licensee transfer and termination, long-term site monitoring, surveillance, ownership, and ultimate custody of source material milling facilities and byproduct material impoundments.”

Wyoming needs to replace the phrase “source material recovery or milling operation” with the phrase “operation related to source material involved in uranium or thorium recovery or milling, and byproduct material as defined in Section 11e.(2) of the Atomic Energy Act of 1954, 42 U.S.C. § 2014(e)(2), as amended.” Wyoming needs to make the above change in order to be consistent with language that will be in their Agreement and enabling legislation.

Comment 3 from NRC’s Oct. 13, 2016 letter:

Wyoming Chapter 4 does not address licensing of mill operations at sites no longer active if the site is covered by the remedial action program of UMTRCA Title I.

Wyoming needs to include language in their equivalent to 10 CFR 40.2a that addresses the licensing of mill operations at sites no longer active if the site is covered by the remedial action program of UMTRCA Title I. Wyoming needs to make the above change in order to meet the Compatibility Category A designation assigned to 10 CFR 40.2a.

Comment 7 from NRC’s Oct. 13, 2016 letter:

Wyoming omits equivalent recordkeeping requirements for decommissioning as defined in 10 CFR 40.36 (f). Wyoming needs to submit requirements that meet the essential health and safety objectives in order to meet the Compatibility Category H&S designation assigned to 40.36(f).

Comment 9 from NRC’s Oct. 13, 2016 letter:

Wyoming has excluded this regulation and considers this regulation outside the scope of its agreement. Wyoming has provided unique reciprocity requirements in their enabling legislation. Wyoming needs to submit requirements that meet the essential objectives in order to meet the Compatibility Category C designation assigned to 10 CFR 150.20.

Wyoming also needs to address its unique reciprocity regulations contained in its enabling legislation.

The above comments stand and are listed as comment 1, 2, 3, 7 and 9 in NRC’s Oct. 13, 2016 letter.

NRC Comment from October 3, 2016 letter ML 16123A034

Comment 27 Wyoming omits a definition for Special Nuclear Material. Wyoming needs to submit the definition of "Special Nuclear Material" in order to meet the Compatibility A designation assigned to the definition.



Comment 35 Wyoming omits equivalent requirements for 10 CR 20.1005(b). Wyoming needs to submit equivalent requirements as stated above in order to meet the Compatibility Category A designation assigned to 10 CFR 20.1005.

DEQ Comment: Changes to the governing statutes in Article 20 need to be incorporated into the proposed regulations. Where statutes are referenced, the 2016 date will be changed to 2017. Additionally other dates stated in the regulations should be investigated to determine if changes to a 2017 date is warranted.