

Status of the NRC's Prior Comments on the Previously Reviewed Wyoming Regulations, Draft Application, Supplemental Information and Final Application for a 274b. Agreement

Section I: Comments from the April 20, 2017 letter to Wyoming¹

Section I.A. Comments on the Draft Application

The following section reports the current status of NRC's outstanding comments on Wyoming's draft application from the April 20, 2017 letter to Wyoming. The comments below are quoted directly from the April 20, 2017 letter and uses the same comment number and headings. The current comment status is noted in bold at the end of each comment.

Subsection 4.1 - Legal Elements

1. General Comment: The NRC review team has only previously reviewed Article 20, Nuclear Regulatory Agreement, the Data Collection Trespass Law, and specific legislative provisions that were submitted to show authorization to implement specific requirements for the 274b. Atomic Energy Act of 1954, 42 U.S.C. § 2014(e)(2), as amended, (AEA) Agreement (274b. Agreement) for Wyoming's uranium recovery program. Some of the legislation in the draft application has not been previously reviewed and creates uncertainty regarding how this legislation relates to the implementation of Wyoming's uranium recovery program. Many of the Articles in the draft application refer to "mining," and it is unclear if these provisions apply to the uranium and thorium milling program. The Articles also frequently use the term "permits" and do not use the term "licenses." It is understood that Wyoming regulates mining activities within the State. It will be necessary for Wyoming to distinguish within the Articles which provisions apply to the uranium and thorium milling program and which provisions apply to the regulation of mining. Additionally, within the provisions that apply to the uranium and thorium milling program, please use the term "licensing." Nuclear Regulatory Commission (NRC) regulations do not use the term "permits" within its regulations.

The NRC review team would like to schedule a meeting to discuss the interactions between these various legislative provisions in more detail. The following are our specific concerns on Article 1, General Provisions; Article 4, Land Quality; and Article 20, The Nuclear Regulatory Agreement.

Comment resolved.

2. On page 7 of 1080, the last paragraph states that the NRC will retain authority over the six 11e.(2) decommissioning sites (i.e., Uranium Mill Tailings Radiation Control Act (UMTRCA) Title II sites) in Wyoming after the transfer of regulatory authority. The draft application deviates from the limited 274b. Agreement as outlined and approved by the Nuclear Regulatory Commission in SRM SECY-16-0084.

¹ Comments were provided in the NRC's April 20, 2017 letter to Wyoming. (ML17062A962).

The NRC requests this language be removed or revised so Wyoming's assumes authority over all 11e.(2) sites in the final application.

Comment modified - Proposed agreement needs to be revised to be consistent with the Staff Requirements Memorandum (SRM) for SECY 17-0081 "Status and Resolution of Issues Associated with the Transfer of Six Decommissioning Uranium Mill Sites to the State of Wyoming. (Oct. 4, 2017). Wyoming would assume authority over all 11e.(2) sites except the American Nuclear Corporation (ANC) site in Gas Hills, Wyoming.

3. On page 30 of 1080, Wyoming Statute 35-11-103(d)(v), the definition states "Commercial radioactive waste management facility' means any facility used or intended to be used to receive for disposal, storage, reprocessing or treatment, any amount of radioactive wastes which are generated by any person other than the facility owner or operator, or which are generated at a location other than the location of the facility."

Please clarify how the definition of "commercial radioactive waste management facility" and the provisions in this section interact with the NRC regulatory requirements and affect Wyoming's implementation of the NRC's regulatory requirements. It will be necessary to indicate how commercial radioactive waste management facilities within Wyoming's jurisdiction will be regulated with regard to the provisions in the Articles pertaining to the uranium and thorium milling program (specifically, Wyoming regulations equivalent to 10 CFR Part 40) and as related to the scope of material defined in the Agreement.

Comment resolved.

4. On page 32 of 1080, Wyoming Statute 35-11-103(e)(i), the definition states, "Reclamation' means the process of reclaiming an area of land affected by mining to use for grazing, agricultural, recreational, wildlife purposes, or any other purpose of equal or greater value. The process may require contouring, terracing, grading, resoiling, revegetation, compaction and stabilization, settling ponds, water impoundments, diversion ditches, and other water treatment facilities in order to eliminate water diminution to the extent that existing water sources are adversely affected, pollution, soil and wind erosion, or flooding resulting from mining or any other activity to accomplish the reclamation of the land affected to a useful purpose;"

The definition mentions "mining" and does not mention "milling" or radioactive materials.

Please clarify if the definition of "reclamation" applies to the agreement materials and how it affects Wyoming's implementation of NRC regulatory requirements. Specifically, it will be necessary for Wyoming to indicate how it will implement "reclamation" as it applies to the provisions in the Articles pertaining to the uranium and thorium milling program.

Comment resolved.

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.

Comment resolved.

6. On page 36 of 1080, Wyoming Statute 35-11-103(f), it states “[S]pecific definitions applying to in situ mining are: ”

“Mining” is not regulated by the NRC and will not be included in the limited 274b. Agreement. It is unclear if these definitions apply to Wyoming’s proposed 274b. Agreement for source material involved in uranium and thorium milling. Please specify which of these definitions apply to Wyoming’s implementation of NRC regulatory requirements.

Comment resolved.

7. On page 36 of 1080, Wyoming Statute 35-11-103(f), it states, “[S]pecific definitions applying to in situ mining are: “(iii) ‘Ground water restoration’ means the condition achieved when the quality of all ground water affected by the injection of recovery fluids is returned to a quality of use equal to or better than, and consistent with the uses for which the water was suitable prior to the operation by employing the best practicable technology.”

The “groundwater restoration” definition uses the term “quality of use,” which is not compatible with the restoration criteria of background, maximum contaminant level (MCL), or alternate concentration limit (ACL) as outlined in 10 CFR Part 40, Appendix A, Criterion 5. The criterion requires restoration to background level, or MCL unless the regulatory authority approves a licensee’s request for an ACL. Class of use is only one, of many factors, that the regulatory authority can consider when making its ACL determination.

Please remove the term “quality of use” from the definition of “groundwater restoration.” This comment is related to comment 59 under Regulatory Requirements Program Elements.

Comment resolved.

8. On page 40 of 1080, Wyoming Statute 35-11-103(j)(i), the definition states, “Byproduct material’ means the tailings or wastes produced by the extraction or concentration of uranium and thorium from any ore processed primarily for its source material content as defined in section 11.(e)(2) of the Atomic Energy Act of 1954, 42 U.S.C. § 2014(e)(2), as amended; ”

The definition of “byproduct material” is inconsistent with the definition of byproduct material in Article 20.

Please revise the definition of byproduct material to be consistent with Article 20.

Comment resolved.

9. On page 41 of 1080, Wyoming Statute 35-11-103(j)(iii), the definition states, “Source material’ means uranium or thorium, or any combination thereof, in any physical or chemical form or ores which contain by weight one-twentieth of one percent (0.05%) or more of uranium, thorium, or any combination thereof. Source material does not include special nuclear material.”

The definition of “source material” is inconsistent with the definition in Section 11z. of the AEA, 42 U.S.C. § 2014(e)(2), as amended; and Article 20.

Please revise the definition of “source material” to be consistent with Article 20.

Comment resolved.

10. On page 256 of 1080, Wyoming Statute 35-11-1609(d) specifies the process for handling a petition for long-term surveillance. The process in this regulation does not align with the UMTRCA Title II requirements for transferring sites to a custodial agency (e.g., the Department of Energy (DOE)). Guidance for long-term surveillance plans can be found in NMSS Agreement State Procedure Approval SA-900, “Termination of Uranium Milling Licenses in Agreement States” (SA-900).

Please clarify how the procedures in this regulation align with the UMTRCA Title II requirements for transferring sites to a custodial agency.

Comment resolved.

11. On page 266 of 1080, General Comment: It appears there are legislative amendments to Article 20 and other legislative provisions that would apply to Wyoming’s implementation of NRC regulatory requirements that are not included in Article 20.

Please provide the current version of Article 20 in its entirety and include all statutes that apply to Wyoming’s implementation of NRC regulatory requirements.

Comment resolved.

12. On page 266 of 1080, General Comment: in Article 20 in Section 35-11-2002(c), it states that the provisions in Article 4 apply to all licenses issued and actions taken under Article 20, except to the extent that the Article 20 provisions are inconsistent with Article 4 provisions.

Please clarify if, or how, Article 4 applies to Wyoming's implementation of NRC regulatory requirements with regard to the reference in Section 35-11-2002(c).

Comment resolved.

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.

Comment resolved.

14. On page 267 of 1080, Wyoming Statute 35-11-2003(d), it states, "[T]he department shall inspect a licensee's operation to ensure compliance with license conditions, as determined necessary by the administrator of the land quality division to protect public health and safety. The department shall also inspect proposed facilities and proposed expansion of existing facilities to ensure that unauthorized construction is not occurring. Licensees, permittees and applicants for a license or permit shall obtain and grant the department access to inspect their mining operations, source material recovery or milling operations and byproduct material generated at such times and frequencies as determined necessary by the department to protect public health and safety."

"Inspections" do not occur until after a license is issued. However, NRC recognizes that some State statutes or regulations can conduct an "inspection" prior to the issuance of a license. Please confirm that the use of the term "inspection" is correct. If not, the term "site licensing visits" or similar term should be used to describe on-site visits prior to issuance of a license. Guidance on pre-licensing on-site visits can be found in NUREG-1556, Volume 20, "Guidance on Administrative Licensing Procedures". This comment is related to comment 71.

Comment resolved.

15. On page 267 of 1080, Wyoming Statute 35-11-2003(e), it states, "[W]hen issuing a license for byproduct material under this article, the director shall require licensees to provide an approved financial assurance arrangement consistent with nuclear regulatory commission requirements provided in 10 CFR Part 40, Appendix A, Criterion 9, as amended. The arrangement shall contain sufficient funds to cover the costs of decommissioning and, to the extent applicable, long-term surveillance and maintenance for conventional source material milling and heap leach facilities."

The phrase “to the extent applicable” is inconsistent with 10 CFR Part 40, Appendix A, Criterion 9. The provision should read, “[W]hen issuing a license for byproduct material under this article, the director shall require licensees to provide an approved financial assurance arrangement consistent with nuclear regulatory commission requirements provided in 10 CFR Part 40, Appendix A, Criterion 9, as amended. The arrangement shall contain sufficient funds to cover the costs of decommissioning and long-term surveillance and maintenance for conventional source material milling and heap leach facilities.”

Comment resolved.

16. On page 268 of 1080, Wyoming Statute 35-11-2004(a), it states, “[T]he department shall prescribe conditions in licenses issued, renewed or amended for an activity that results in production of byproduct material to minimize or, if possible, eliminate the need for long-term maintenance and monitoring before the termination of the license.”

The language in the regulation, “if possible, eliminate the need for long-term maintenance and monitoring before licensing termination,” implies that there may be the need for long-term maintenance and monitoring after license termination. This may be the case for a conventional mill tailings impoundment or heap leach facility being transferred to a custodial agency for long-term care and maintenance, but would not be the case for an in situ recovery (ISR) facility.

Please clarify the meaning of this phrase in your regulations.

Comment resolved.

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.

Comment resolved.

18. On page 273 of 1080, Wyoming Statute 35-11-2003(e), it states, “[W]hen issuing a license for byproduct material under this article, the director shall require licensees to provide an approved financial assurance arrangement consistent with nuclear regulatory commission requirements provided in 10 CFR part 40, appendix A, criterion 9, as amended. The arrangement shall contain sufficient funds to cover the costs of decommissioning and, to the extent applicable, long-term surveillance and maintenance for conventional source material milling and heap leach facilities.”

The phrase “to the extent applicable” is inconsistent with 10 CFR Part 40, Appendix A, Criterion 9. The provision should read, “[W]hen issuing a license for byproduct material under this article, the director shall require licensees to provide an approved financial assurance arrangement consistent with nuclear regulatory commission requirements provided in 10 CFR Part 40, Appendix A, Criterion 9, as amended. The arrangement shall contain sufficient funds to cover the costs of decommissioning and long-term surveillance and maintenance for conventional source material milling and heap leach facilities.”

Comment resolved.

19. On page 274 of 1080, Wyoming Statute 35-11-2004(c), it states, “[P]rior to terminating a byproduct material license the department shall ensure the ownership of a disposal site and the byproduct material resulting from licensed activity are transferred to: (i) The state of Wyoming; or (ii) [T]he federal government if the state declines to acquire the site, the byproduct material, or both the site and the byproduct material.”

It is unclear how Wyoming can separate the site from the byproduct material with regard to the termination of the material license.

Please clarify what Wyoming meant with this statement and how it would affect the termination of material licenses.

Comment Stands. The NRC staff are still evaluating the additional information Wyoming has provided regarding § 35-11-2004(c) and will inform Wyoming once the evaluation is finished.

20. On page 321 of 1080, Section 4.1.2.4, the last sentence of the first paragraph states, “[O]nce primacy has been obtained the Program will fill another technical position.”

The term “primacy” is generally used within the Environmental Protection Agency, Underground Injection Control Program to describe the EPA’s delegation of authority to a State to implement a regulatory program. Unlike EPA, the NRC does not delegate authority, but discontinues regulatory authority under the Agreement State program.

Please revise the sentence to state, “[O]nce the agreement goes into effect the Program will fill another technical position.”

Comment resolved. We also recommend Wyoming perform a word search to ensure “primacy” is not used in the final application package when referring to the Agreement State program.

21. On page 328 of 1080, Section 4.1.3.1, subsection (3), it states, “[T]he State does not seek authority over Title II sites where the Commission has initiated review of the Long-Term Surveillance Plan. The Commission will retain regulatory authority over such Title II sites.”

This provision deviates from the scope of material of the limited 274b. Agreement as outlined and approved by the Nuclear Regulatory Commission in SRM SECY-16-0084.

Please revise this section to be consistent with the limited Agreement approved by the Commission.

Comment resolved.

22. On page 329 of 1080, Section 4.1.3.1, subsection (4), it states, “[T]he Commission’s Confirmatory Orders and Modifications (Docket No. 40-4492) with respect to the American Nuclear Corporation site located in the Gas Hills, Wyoming, as accepted and agreed upon by the State will still govern after the proposed Agreement is executed. Following the State’s fulfillment of the obligations agreed upon in the Confirmatory Orders and Modifications, the Commission shall retain authority over the decommissioning of the American Nuclear Corporation Site.”

This deviates from the scope of material of the limited 274b. Agreement as outlined and approved by the Nuclear Regulatory Commission in SRM SECY-16-0084.

Please delete or revise subsection (4) to be consistent with the limited Agreement approved by the Commission.

Comment modified, 4.1.3.1.(3) should be revised to state, “[T]he provision Article II. C varies from the standard Agreement. In concurrence with the NRC Commission decision in SRM 17-0081, the NRC shall retain authority over the decommissioning of the ANC site because of unique circumstances. “

23. On page 329 of 1080, the first whereas clause states “[S]ource material involved in the extraction and concentration of uranium and thorium”

This language is inconsistent with the description source material in the current Wyoming legislation and 11e.(2) in the AEA, 42 U.S.C. § 2014(e)(2), as amended. The language should be revised to state “[S]ource material involved in the extraction or concentration of uranium or thorium in source material and ores at milling facilities” This change should be made throughout the Agreement (e.g., the first whereas clause on page 332, Article I B. on page 332, and Article II A.4 on page 332).

Comment resolved.

24. On page 331 of 1080, Appendix A to Subsection 4.1.3, Wyoming is missing the following whereas clause that is found in the model draft agreement in MD 5.8.:

WHEREAS, The Commission and the State recognize the desirability of the reciprocal recognition of licenses, and of the granting of limited exemptions from licensing of those materials subject to this Agreement; and,

It is necessary that Wyoming add this whereas clause before the last whereas clause in the draft agreement to be consistent with recognizing reciprocity of licensing between Wyoming, other Agreement States, and the NRC.

Comment resolved.

25. On page 332 of 1080, Article II, Section A.3, it states, “[B]yproduct material as defined in section 11e(4) of the Act;”

Add a period after the “e” to state “11e.(4)” instead of “11e(4).”

Comment resolved.

26. On page 332 of 1080, Article II, Section A.5, it states, “[S]pecial nuclear materials in quantities not sufficient to form a critical mass;”
Remove the phrase “in quantities not sufficient to form a critical mass” since the NRC will retain authority over all special nuclear material in the State.

Comment resolved.

27. On page 332 of 1080, Article II, Section A.6, it states that the NRC will retain authority over “[T]he regulation of the land disposal of byproduct, excluding 11e.(2) byproduct material as defined in the Act, source, or special nuclear waste materials received from other persons.”

Please clarify what this provision covers under the Agreement. Will Wyoming assume regulatory authority over the land disposal of 11e.(2) byproduct material? Please clarify this statement with regard to the scope of material defined in the Agreement.

Comment resolved.

28. On page 333 of 1080, Article II, Section A.13, it states, “[T]he regulation of any independent commercial laboratory facility acquiring, owning, possessing, transferring, offering or receiving for transport, any byproduct materials as defined in Section 11e.(2) of the Act.”

Please clarify whether the NRC or Wyoming will have regulatory authority over independent commercial laboratories that are handling source material involved with uranium milling. The current provision has NRC retaining authority over the laboratories that are only handling 11e.(2) material. Please clarify this statement with regard to the scope of material defined in the Agreement.

Comment resolved.

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.

Comment resolved.

30. On page 334 of 1080, Article II, Section C, it states, “[N]otwithstanding this Agreement, the Commission shall retain the authority over the decommissioning of all sites under Title II of the Uranium Mill Tailings Radiation Control Act of 1978 (“Title II Sites”) in which the Commission has initiated or is undergoing review of a Long-Term Surveillance Plan, including but not limited to the following Title II Sites.”

Article II C then states that the NRC will retain regulatory authority over 5 UMTRCA Title II sites in decommissioning (e.g., Bear Creek; Pathfinder, Lucky Mc Gas Hills; Umetco, Gas Hills; Western Nuclear Inc.; Exxon Mobile, Highlands) where the NRC has reviewed the long-term plan but not terminated the license.

Article II C is inconsistent with the proposed limited Agreement approved by the Commission where Wyoming would assume regulatory authority over all UMTRCA Title II sites.

Please remove Article II C to be consistent with the limited agreement approved by the Commission.

Comment modified, Please delete Article II C & D. Please revise Article I A. to state, “[B]yproduct materials as defined in Section 11e.(2) of the Act, except as specified in Article II A. (14).” Please revise Article II.A. by adding (14), which states, “[N]otwithstanding this Agreement, the NRC shall retain regulatory authority over the American Nuclear Corporation site docket number 40-4492”

31. On page 334 of 1080, Article II, Section D, it states, “[N]otwithstanding this Agreement, reclamation of the American Nuclear Corporation Site in Gas Hills, Wyoming shall..... the Commission shall retain authority over the decommissioning of the American Nuclear Corporation Site.”

Article II D is inconsistent with the proposed limited Agreement approved by the Commission where Wyoming would assume regulatory authority over all UMTRCA Title II sites.

Please remove Article II D to be consistent with the limited agreement approved by the Commission.

Comment resolved. However, we need further discussion regarding referencing the Memorandum of Understanding in the Agreement.

Subsection 4.2 - Regulatory Requirements Program Elements

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.

Comment resolved.

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....”

Comment resolved.

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.

Comment resolved.

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.”

Comment resolved.

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.

Comment resolved.

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

Please provide missing section.

Comment resolved.

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.

Comment resolved.

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.”

Comment resolved.

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.”

Comment resolved.

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.

Comment resolved.

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.

Comment resolved.

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.

Comment resolved.

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.”

Comment resolved.

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.

Comment resolved.

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.

Comment resolved.

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.

Comment resolved.

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.

Comment resolved.

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.

Comment resolved.

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.

Comment resolved.

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.

Comment resolved.

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.

Comment resolved.

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.

Comment resolved.

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.

Comment resolved.

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.

Comment resolved.

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.

Comment resolved.

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.

Comment resolved.

58. On page 414 of 1080, Chapter 11, this Chapter of Wyoming's regulations does not appear to have integrated Wyoming's implementation on NRC regulatory requirements. For example, Chapter 11 consistently uses the term "permit" and "Research and Development Testing License." The issuance of a permit is for mining. A Research and Development Testing License does not appear to be equivalent to a radioactive materials license. There is little mention of the uranium recovery program material license or any aspects of radiation protection in this Chapter. Comments 58 through 61 address some specific issues regarding the applicability of Chapter 11 to the Agreement State program.

The NRC review would like to schedule a meeting with the State to discuss this matter further.

Comment resolved.

59. On page 416 of 1080, Chapter 11, Section 1(j), “Groundwater restoration” states this “means as defined in W.S. § 35-11-103(f) (iii).”

The NRC review team notes that Wyoming’s definition of groundwater restoration appears to be inconsistent with 10 CFR Part 40, Appendix A, Criterion 5.

This comment is related to comment 7 under Legal Elements. Please revise this definition to be consistent with 10 CFR Part 40, Appendix A definitions.

Comment resolved.

60. On page 426 of 1080, Chapter 11, Section 5(a)(ii), it states, “[T]he information necessary to demonstrate that the operation will achieve the standard of returning all affected groundwater to the pre-mining class of use or better using Best Practicable Technology, in accordance with the following provisions.”

The NRC review team notes the Wyoming regulation allows returning all affected groundwater to the pre-mining class of use, which is inconsistent with the restoration criteria in 10 CFR Part 40, Appendix A, Criterion 5.

Please revise this section to be consistent with 10 CFR Part 40, Appendix A, Criterion 5. 10 CFR Part 40, Appendix A is Compatibility Category A, which requires the State Program element to be essentially identical to that of the NRC.

Comment resolved.

61. On page 427 of 1080, Chapter 11, Section 5 (a)(ii)(D), it states, “[R]egardless of the restored groundwater quality in the production zone, the adjacent aquifers and other waters within the same aquifers must be fully protected to their class of use and, outside the aquifer exemption boundary, to applicable Maximum Contaminant Levels from the U.S. Environmental Protection Agency Rules (40 CFR 141, as amended July 1, 2001)” and Section 5 (a) (ii)(E) states, “[I]f the operator demonstrates the application of Best Practicable Technology to the satisfaction of the Administrator, but is unable to achieve the pre-mining class of use, then the operator can:”

The review team notes the Wyoming regulation cites protection of groundwater to the class of use of adjacent aquifers and other water within the same aquifer (not the area outside of the exempted boundary) which appears to be inconsistent with the restoration criteria in 10 CFR Part 40, Appendix A, Criterion 5.

Please revise this section to be consistent with 10 CFR Part 40, Appendix A, Criterion 5, and provide clarifications for the terms such as “class of use” and “Best Practicable Technology” with regard to your revisions. These terms are not used in NRC regulations. 10 CFR Part 40, Appendix A is Compatibility Category A, which requires the State Program element to be essentially identical to that of the NRC.

Comment resolved.

62. On page 448 of 1080, Chapter 11, Section 15(b) and (c), Section 15(b) discusses required quarterly reports and Section 15(c) discusses an annual report. The NRC review team notes that there is no mention of Semi-Annual Effluent Reports and their contents as required by 10 CFR Part 40.65 “Effluent monitoring reporting requirements.”

Please provide a clarification and make appropriate revisions to the regulations. The compatibility category of 10 CFR 40.65 is Compatibility Category C, where the State Program element should adopt the essential objectives if the NRC regulation to avoid conflicts, duplications, or gaps.

Comment resolved.

63. On page 459 of 1080, Guideline No. 4, In Situ Mining, Noncoal. The NRC review team provides the following general comments on Guideline No. 4 as submitted in the Wyoming Agreement State application. While Guideline No. 4 provides comprehensive guidance on review for a Permit to Mine application, the guidance does not reference any uranium recovery program guidance for reviewing a license application for radioactive materials.

In general, there is no discussion of ground water restoration standards in the production zone that reference 10 CFR Part 40, Appendix A. Guideline No. 4 also has multiple references to class of use standards as a consideration for groundwater restoration if background concentrations cannot be met with best practicable technology, which is not compatible with 10 CFR Part 40, Appendix A, Criterion 5. A licensee can only apply for an ACL as a restoration standard if background or MCLs cannot be met.

There does not appear to be any incorporation of radiation protection standards into the guidance in Guideline No. 4. For example, checklists do not appear to have any reference or guidance pertaining to radiation protection and there is no discussion of semi-annual reporting. It appears that the language in Guideline No. 4 was taken from guidance for the Underground Injection Control Program, and a comprehensive incorporation of uranium recovery program guidance will be needed. In order to be able to effectively implement Guideline No. 4 with regard to the regulation of uranium and thorium milling, additional work will be required to incorporate the provisions on 10 CFR Part 40.

Comment resolved.

64. On page 527 of 1080, Guideline No. 4, In Situ Mining Noncoal, the checklist does not provide sufficiently detailed information to be useful. In particular, the sections of the checklist under Part IV, Restoration/Reclamation Plan need more detail.

Please revise the document to provide additional details in the checklist. To aid the program, Wyoming may find the checklist in NUREG-1727 useful in responding to this question. The checklist in NUREG-1727 is more complete and is useful to regulators with regard decommissioning activities.

Comment resolved.

65. On page 665 of 1080, Appendix B to Subsection 4.2, Wyoming indicates that it is including as a part of their regulations 10 CFR 20.1401- 20.1406 (10 CFR Subpart E). Please clarify whether this section is referencing 10 CFR Part 20 Subpart E to be used for non-11e.(2) byproduct material contamination of a building or process equipment on a site.

Comment resolved.

Subsection 4.3 - Licensing Program Elements

66. On page 751 of 1080, General Comment: Licensing Procedural Manual Uranium Recovery Program (Licensing Manual), the introduction section references NUREG-1757. All aspects of this document do not apply to uranium recovery facilities. In NUREG-1757, Volume 3, Revision 1, under section 1.1 Purpose and Applicability, it states, "[T]his volume applies to the timeliness and recordkeeping requirements for licensees under Title 10 of the *Code of Federal Regulations* (10 CFR) Parts 30, 40, 70, and 72. It also applies to financial assurance requirements for licensees under 10 CFR Parts 30, 40, 70, and 72, with the exception of licensees (uranium recovery facilities) subject to Criteria 9 and 10 of Appendix A, 'Criteria Relating to the Operation of Uranium Mills and the Disposition of Tailings or Wastes Produced by the Extraction or Concentration of Source Material From Ores Processed Primarily for Their Source Material Content,' to 10 CFR Part 40, 'Domestic Licensing of Source Materials.'"

The reference to NUREG-1757 with regard to financial assurance requirements for licensees under 10 CFR Parts 30, 40, 70, and 72 should be removed from this section.

Comment resolved.

67. On page 752 of 1080, Licensing Manual, section 2.1, it states "[T]he license review is designed to assure that the uses of, and authorizations for, licensed material will not present a hazard to the general public or the workers." The appropriate standard with regard to regulatory language is "adequate to protect public health and safety of the general public and workers" instead of "not present a hazard."

The NRC review team recommends revising the sentence to read, "[T]he license review is designed to assure that the uses of, and authorizations for, licensed material will be adequate to protect the public health and safety of the general public and workers."

Comment resolved.

68. On page 752 of 1080, Licensing Manual, section 2.4, it states, “[T]he license review is done by at least two persons: a main technical staff reviewer and a secondary peer staff reviewer.”

The NRC review team agrees that the above arrangement is typical in many technical reviews. However, more complex reviews may require two or three main technical reviewers (e.g., a hydrologist, health physicist (HP), and geotechnical engineer). A lead technical reviewer may be responsible for coordinating requests for information or writing a draft version of the licensing action, but the lead technical reviewer will need assistance in areas outside their expertise.

To aid the program, the NRC review team recommends the Wyoming’s procedures be revised to include language that clarifies the need to have sufficient technical expertise for each licensing action particularly for more complex actions.

Comment resolved.

69. On page 755 of 1080, Licensing Manual, section 3.0 needs additional review and revision. For example, section 3.8 (a) (2) states, “[A]pplication meets the technical requirements contained in Chapter 4 and Guideline 4.”

The NRC review team notes that Guideline No. 4 has not been updated for the review of radioactive materials and has not been updated to incorporate radiation protection standards. Additionally, the regulations in Chapter 4 do not provide clear guidance for a comprehensive technical review for Agreement materials. While there are references listed in the “Licensing Procedure Manual,” section 1.0, Introduction, there is little specific guidance or criteria as to which documents to use for review of radioactive materials or radiation protection. The templates and checklists provided on page 770 of 1080 (Licensing Manual Appendix A) and on page 771 of 1080 (Licensing Manual Appendix B) do not appear adequate for a complex review.

Please provide additional information to address these concerns. You may find the checklists in NUREG-1727 useful in responding to this question.

Comment resolved.

70. On page 754 of 1080, Licensing Manual, section 3.1, there is no mention of the option to request additional information from the applicant, if any is required.

To aid the program, the NRC review team recommends revising this document to specifically mention of the staff’s ability to request additional information from the applicant between 3.1(d) and (e) in the Licensing Manual. This is good regulatory practice.

Comment resolved.

71. On page 754 of 1080, Licensing Manual, section 3.2, it states “[T]he reviewers should also assess if a pre-licensing inspection is necessary for the license application.”

Technically, the program does not carry out “inspections” until after a license is issued and does pre-licensing on-site visits.

For consistency with terms used by the NRC, the NRC review team recommends that this sentence be revised to state, “[T]he reviewers should also assess if a pre-licensing on-site visit is necessary for the license application.” Corresponding changes should be made throughout the document (e.g., the Licensing Review Checklist in Appendix B). Guidance on pre-licensing on-site visits can be found in NUREG-1556, Volume 20, “Guidance on Administrative Licensing Procedures.” This comment is related to comment 14.

Comment resolved.

72. On page 757 of 1080, Licensing Manual, section 3.11 does not discuss coordination with the DOE or the NRC. The procedure also does not mention the development of a Completion Review Report which is inconsistent with the process as described in SA-900.

Wyoming needs to revise the procedure for termination of licenses to capture the license termination process as it is described in SA-900.

Comment resolved.

73. On page 760 of 1080 Licensing Manual, section 4.0 in its entirety needs to be reviewed for consistency with 10 CFR Part 40 and rewritten because it incorrectly mixes Part 40 and Part 20 cleanup requirements and omits many of the requirements of Part 40. It should be noted that uranium recovery sites are not subject to 10 CFR Part 20 Subpart E cleanup requirements.

It is necessary that Wyoming indicates in the regulations 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 the guidance documents you will be using to implement these requirements.

Comment resolved.

74. On page 761 of 1080, Licensing Manual, section 4.2 where the Components of a Decommissioning Plan are addressed, the discussion included is more appropriate for a non-milling site and inconsistent with NUREG-1757. The information is incomplete. A more complete set of guidance would be more helpful in aiding Wyoming with regard to the review of decommissioning plans and other information to support the decommissioning of licensed facilities.

In order to aid the program, please revise this section so it is consistent with NUREG-1757.

Comment resolved.

75. On page 762 of 1080, Licensing Manual, section 4.5, the information provided in this section is not applicable to milling sites because the requirements in 10 CFR Part 20.1403 and 20.1404 do not apply to uranium recovery sites. 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 the guidance documents you will be using to implement these requirements.

Comment resolved.

76. On page 762 of 1080, Licensing Manual, section 4.6, the NRC review for license termination is not identified. This review is required and needs to be referenced in Wyoming procedures. Additionally, there is no mention of the NRC review for partial site decommissioning or partial site release.

Wyoming needs to revise the licensing manual to include NRC review of partial license terminations in site decommissioning. NRC provides guidance on license termination (including partial license terminations) in SA-900.

Comment resolved.

77. On page 764 of 1080, Licensing Manual, section 4.7 (d), it states, “[T]hree- to four-foot thick soil covers over contaminated soil, slag, or tailing piles are also generally acceptable.”

The NRC review team recommends that Wyoming revise the licensing manual to be consistent with 10 CFR Part 40, Appendix A, Criterion 6 which is Compatibility Category C. 10 CFR Part 40, Appendix A, Criterion 6 requires that a designed engineered barrier should be used when disposing of waste by-product material.

Please revise the Wyoming procedures accordingly.

Comment resolved.

78. On page 765 of 1080, Licensing Manual, section 4.7 (h) (2), the NRC review team notes the reference to “complex materials site” in this chapter is the only instance where this term is used in the draft application. NRC staff has provided guidance in Regulatory Issue Summary 2014-08, Revision 1 (ML15181A223) with regard to how the NRC defines the term “complex materials facility.” Please clarify or define the term “complex materials site” and ensure that your definition is consistent with RIS 2014-08, Revision 1.

Comment resolved.

79. On page 767 of 1080, Licensing Manual, section 7.0 appears to be inconsistent with the procedures listed in section 3.0, "Procedures for Handling License Actions." For example, there is no discussion of Phase I or Phase II reviews.

In order make the Licensing Manual a more effective tool for the program, the NRC review team recommends resolving the discrepancies between section 3.0 and section 7.0.

Comment resolved.

80. On page 770 and 771 of 1080, Licensing Manual, Appendix A and Appendix B are not as complete when compared to other guidance documents, such as Guideline No. 4 and NUREG-1569 "Standard Review Plan for New ISR Applications." The documents in Appendix A and B provides minimal review guidance for a new complex uranium recovery facility application.

Please revise Appendix A and B to include additional information for a license reviewer. You may find NUREG-1569 "Standard Review Plan for New ISR Applications" useful in revising these appendices.

Comment resolved.

Subsection 4.4 – Inspection Program Elements

81. On page 781 of 1080, Appendix A to Subsection 4.4, should include the following references: Inspection Procedure 88045, Effluent Control and Environmental Monitoring; Inspection Procedure 88035, Radioactive Waste Processing, Handling, Storage, and Transportation; Inspection Procedure 88030, Radiation Protection; and Inspection Procedure 88005, Management Organization Controls.

Comment resolved.

82. On page 829 of 1080, Inspection Procedure (URP-003) section 4.0 includes reference to NUREG/BR-0241. This document has been superseded by NUREG-1727, NUREG-1757, and MARSSIM.

Comment resolved.

Please delete reference to NUREG/BR-0241, and replace it with a reference to NUREG-1727, NUREG-1757, and MARSSIM.

Comment resolved.

83. On page 850 of 1010, Uranium Recovery Inspection Procedure (URP-05) section 6, "Other Inspection Sampling Processes," please include procedures to specify how field samples of soil or water will be taken, handled, packaged and shipped for analysis.

Comment resolved.

Subsection 4.5 - Enforcement Program Elements

84. On page 859 of 1080, Appendix A to Subsection 4.5, section 2.1.2, it states “[A]n inspection letter is issued at the conclusion of an inspection to document the occurrence of the inspection.” However, “inspection letters” are not specifically mentioned in the Inspection Procedures provided in Subsection 4.4 “Inspection Program Elements.”

For consistency, in order to help the Wyoming inspection program, the NRC review team recommends that Wyoming revise the Inspection Procedures to specifically mention issuance of inspection letters to document the occurrence of an inspection.

Comment resolved.

85. On page 859 of 1080, Appendix A to Subsection 4.5, Wyoming has provided information on their proposed enforcement program.

These enforcement elements should include the following:

Wyoming should have enforcement procedures for ensuring the fair and impartial administration of regulatory law.

- a. Wyoming should scale the actions to the seriousness of the violation.
- b. The procedures should establish standard methods of communicating sanctions to the licensee. Wyoming should give written notice using standardized wording and format. Legal counsel should review the wording and format.
- c. The procedures should include a means for tracking the completion of enforcement actions.

For serious or repeated violations of regulatory requirements, the program should use escalated enforcement. Escalated enforcement actions may include:

- a. Administrative or civil monetary penalties;
- b. The modification, suspension, or revocation of the license;
- c. Referral for criminal prosecution.

Wyoming needs to submit procedures for escalating enforcement actions.

- a. Wyoming should scale the sanctions in escalated enforcement cases to the seriousness of the violation. The sanctions should be more serious than routine enforcement.
- b. The procedures should address notifying the licensee of proposed escalated enforcement actions. The notice should be written, using standard wording and format when practical.
- c. The enforcement program element manager, or higher, should sign the notices of escalated enforcement.
- d. Escalated enforcement actions should be coordinated with legal counsel.

Wyoming needs to address the above comment in their enforcement procedures by providing additional detail. The following references can assist the State:

- a. Criteria Policy Statement, criteria 1, 18, and 23
- b. NUREG-1600, NRC Enforcement Policy
- c. NRC Inspection Manual Chapter 2800 and 2801

On December 7, 2017, the NRC provided Wyoming the following modified comment on this section (ML18019B207) after reviewing the revised August Enforcement Procedure submitted on August 16, 2017 (ML17241A115).

Comment Modified

In your response to this question on the WYDEQ/URP enforcement program, your application should include references to the Department's current enforcement program and/or revise your enforcement procedure in the application to include a discussion of the procedures that will be used to implement the 10 lettered items listed above for this comment. In preparing your response, you can consider the NRC Enforcement Policy, sections 2.0 – 2.2.2 and section 2.3, and section 2.4 of the NRC Enforcement Policy discussion of escalated enforcement.

Comment resolved.

The NRC staff also identified two typos in the revised Wyoming's Subsection 4.5 Appendix A Enforcement Procedures:

- 1) Subsection 1.3 should reference § 35-11-102 instead of § 35-11-103; and**
- 2) the reference to the Policy Statement criteria in Subsection 1.4.1. should also include Criteria 19.**

The NRC staff continues to recommend that Wyoming revise Section 3.0 to specifically state that Wyoming will notify licensees of escalated enforcement actions "in writing." NRC staff also continues to recommend Wyoming to include sample letters and provide examples of handling various situations of non-compliance in the Enforcement Procedures to promote a consistent and fair implementation of Wyoming's enforcement program.

Subsection 4.6 - Technical Staffing and Training Program Elements

86. On page 868 of 1080, Subsection 4.6.1, the paragraph before Table 1 states that Wyoming determined staffing needs based upon an available 1704 hours per employee per year. In comparison, the NRC uses approximately 1430 productive hours per full time employee (FTE) for NRC headquarters staff (See 80 FR 37432 and 81 FR 41171).

The NRC review team recommends that Wyoming confirm that 1704 hours per FTE is the appropriate figure used for the NRC review teams budgetary and resource analyses of the Wyoming program.

Comment resolved.

87. On page 868 of 1080, Subsection 4.6.1, the second paragraph after Table 1 states that the WDEQ predicts 0.5 FTE/yr. for "major licensing actions" (e.g., new licensing actions.) The NRC analysis for the Jane Dough application estimates approximately 0.77 FTE/yr. for new licensing (safety licensing only, not environmental). Since licensing actions undertaken by Wyoming need to include environmental

written analysis and potential hearings required under Section 274o. of the Act, please confirm or revise Wyoming's estimation of time needed for new licensing actions.

Comment resolved.

88. On page 869 of 1080, Subsection 4.6.1, it states that Wyoming will set aside 0.4 FTE for staff to work on decommissioning sites and sites on standby. The review team concludes this amount of effort does not appear adequate to regulate all decommissioning sites.

Wyoming will need to provide additional information that demonstrates adequate FTE to support the decommissioning of the following sites.

1. Anadarko Bear Creek, Powder River Basin;
2. Pathfinder, Lucky Mc, Gas Hills;
3. Umetco Minerals Corporation, Gas Hills;
4. Western Nuclear Inc., Split Rock, Jeffrey City;
5. Exxon Mobile, Highlands, Converse County; and
6. American Nuclear Corporation.

Please revise your estimate to include the decommissioning sites. The NRC has provided Wyoming with an estimate of the amount of work needed for each of the decommissioning sites.

Comment resolved.

89. On page 870 of 1080, 4.6.1, Table 2, Inspection Workload/Year analysis, does not appear to take into account initial start-up inspections or re-start inspections. The NRC review team has found that these type of inspections are generally more labor intensive than regular inspections and typically take approximately 40 hours per inspection at a site.

Table 2 also lists the Staff Hours at uranium recovery sites at 20 hours. The NRC review team has found generally that three full days (8 hour days) are needed for on-site inspections, which would equal 24 hours.

Please provide additional information to clarify Wyoming's estimates for the inspection workload.

Comment resolved.

90. On page 868 of 1080, Subsection 4.6.1, the NRC review team notes the uranium recovery program appears to have only one Health Physicist (HP) on staff, not counting the Program Manager.

The NRC has nine active licenses, seven of which are in Wyoming and provides approximately 8 FTE for Wyoming uranium recovery projects. The NRC uranium recovery program is currently reviewing one new application and four major expansions in Wyoming. Generally, approximately 75% of the NRC uranium recovery program new licensing, major expansion, and licensing actions have been in Wyoming. The NRC uranium recovery program HP staff is at capacity with four full-time FTE, not including the HP staff in NRC Region IV that perform onsite

inspections, with approximately 2 FTE of support for Wyoming uranium recovery projects.

The Texas uranium recovery program has 5 technical staff and one full time manager with 11 active radioactive material licenses. The Texas program provides 10 FTE to the uranium recovery program with 2.15 FTE of support going to the HP staff. The Utah uranium recovery program has 5.9 FTE with one active radioactive material license, one license in standby, and one license in decommissioning. The Utah program HP staff provides support of 1.9 FTE.

Please provide a clarification on the level of HP support the uranium recovery program estimates it will need to support the program.

Comment resolved.

91. On page 871 of 1080, Subsection 4.6.1, Wyoming estimates 5.6 FTE is needed for the uranium recovery program technical review and inspection workload. This workload referenced in the analysis was for licensing review/project management or inspections. The draft application states the uranium recovery program will employ five technical FTE to meet the estimated workload described.

The NRC review team notes the Uranium Recovery Program Manager is counted as one of the technical FTE. It does not appear the uranium recovery program should count the Program Manager as of the technical FTE needed to fulfil the staffing estimate provided. The Program Manager is shown in the application as primarily a supervisory and administrative position. On page 874 of 1080 on the Program Manager Job Content Questionnaire, the position description for the Program Manager shows the position as specifically general management (40%), understanding of law and regulation (25%), human resource management (15%) and program representation (20%). There is no time allotted in the Program Manager's position description to uranium recovery program technical review or inspection, although the Program Manager would be expected to review final work products or accompany inspectors as part of staff qualifications.

Please clarify the Wyoming workload estimates taking into account the above comments and the discussion provided in comment 90.

Comment resolved.

92. On page 871 of 1080, Subsection 4.6.1, it states, "[T]he URP budget includes an additional 3.0 FTE, which are existing Wyoming personnel, to assist the URP workload. Most of the URP workload assigned to these 3.0 FTE will be similar to their existing job duties, which is duplicative of portions of current NRC efforts." The Criteria for Guidance of States and NRC in Discontinuance of NRC Regulatory Authority and Assumption thereof by States through Agreement, Criteria 33, indicates that when other state offices are utilized for contributing to the regulation of uranium processing and disposal of tailings, the lines of communication and administrative control between the state offices and the radiation control program should be clearly drawn.

It is unclear in the draft application if the existing Wyoming personnel will be qualified under the uranium recovery program. It is also unclear how the management of these personnel will be utilized for uranium recovery program reviews.

The Wyoming uranium recovery program currently has one geologist FTE identified. Other geologists and/or hydrogeologists FTEs have not been specifically identified in the application. The Texas program geologist and hydrogeologist staff currently provides support of 1.8 FTE. The Utah program geologist and hydrogeologist staff currently provides support of 1.6 FTE.

Please confirm that Land Quality Division personnel will be qualified under the uranium recovery program. Please describe how these individuals will be managed to perform uranium recovery program activities when needed. Specific Land Quality Division staff utilized for the budgeted staff should be identified and their qualifications included in the final application. Please explain how Wyoming's proposed staffing level will provide adequate resources for the uranium recovery program.

Comment resolved.

Subsection 4.7 - Event and Allegation Response Program Elements

93. On page 986 of 1080, Appendix A to Subsection 4.7, Wyoming has provided information on their proposed event and allegation response procedures. In Appendix A, some of the relevant sections regarding the handling of security related information, procedures for referring allegation to the State Attorney General or State Office of Inspector General equivalent for investigation, information on how the allegations will be tracked in the office and records maintained, and the State response to handling an alleege's fears of retaliation and granting or revoking confidential source status are absent.

Please review the Allegation Response Procedural Manual to ensure it captures the relevant provisions of Management Directive 8.8 to ensure that the State will have an adequate and compatible program for handling allegations. Criteria Policy Statement, Criteria 1 and 11, NMSS Agreement State Procedure Approval, SA-105, "Reviewing Common Performance Indicator, Technical Quality of Incident and Allegation Activities," and NMSS Agreement State Procedure Approval, SA-400, "Management of Allegations" can provide additional guidance.

Please revise your procedures for event and allegation response to include all elements in the three documents listed in the previous paragraph.

On December 7, 2017, the NRC provided Wyoming the following modified comment on this section (ML18019B207) after reviewing the revised August revised Event and Allegation Response Procedure submitted on August 16, 2017 (ML17241A115).

Comment Modified

Please provide additional information on your procedures for granting and revoking confidential source status mentioned in Subsection 4.7, Appendix A, section 3 of your application. Reference to existing Wyoming procedures can be used in your

response. Wyoming can also use Handbook of Management Directive 8.8, “Management of Allegations”, section IV, Granting and Revoking Confidential Source Status, NMSS Agreement State Procedure Approval SA-400, “Management of Allegations”, and section 4.5 of the NRC Allegation Manual or other Agreement State procedures as examples for developing procedures to grant or revoke confidential source status. If you address the comments on the State’s allegation program in Subsection 4.7, Appendix A, requested earlier to this letter (Comments 35 to 61, above), no further action is needed to address this comment.

Comment stands pending review of the revised final application package to verify Wyoming implemented the proposed changes to address comments 35 to 61 in the Section II.A. “Comments on Revised Procedures” below which contain comments on Appendix A to Subsection 4.7, Event and Allegation Response Procedural Manual.

I. B. Additional Comments

The following section directly quotes the comments that were included in the April 20, 2017 letter under the “Additional Comments” heading and uses the same comment numbers. The current status for each comment is noted in bold.

94. On page 881 of 1080, Appendix A to Subsection 4.6.2, on the Job Content Questionnaire, for the position titled, Vacant – Administrative Assistant II, the Administrative Assistant II Position Description is missing page 2 of 5 and page 4 of 5.

Please provide the missing pages for the Questionnaire.

Comment resolved.

95. On page 890 of 1080, Appendix A to Subsection 4.6.2, on the Job Content Questionnaire for the position titled, Vacant (New position authorized by Legislature), and the Position Description is missing page 2 of 6, 3 of 6, and page 5 of 6.

Please provide the missing pages for the Questionnaire.

Comment resolved.

96. On page 905 of 1080, Appendix B to Subsection 4.6.2, in Section 4.6.2.1, Qualification Plan Uranium Recovery Inspector,
- a. On Qualification Card 9, consider adding the specific uranium recovery events to review
 - b. On Qualification Card 10, the training list may be out of date.
 - c. On Qualification Guide 4,

Some of the guidance listed in this document are out-of-date. For example, NUREG-1569 is no longer in draft.

Please revise the document to list the current guidance documents.

Comment resolved.

97. On page 905 of 1080, Appendix B to Subsection 4.6.2, in Section 4.6.2.2 on Qualification Guide 4, some of the guidance listed is out-of-date. For example, NUREG-1569 is no longer in draft. Several recent RISs are not referenced such as the following:

1. Regulatory Issue Summary 2009-05, "Uranium Recovery Policy Regarding: (1) The Process for Scheduling Licensing Reviews of Applications for New Uranium Recovery Facilities and (2) The Restoration of Groundwater at Licensed Uranium In Situ Recovery Facilities"
2. Regulatory Issue Summary 2009-12, "Uranium Recovery Policy Regarding Site Preparation Activities at Proposed, Unlicensed Uranium Recovery Facilities"
3. Regulatory Issue Summary 2009-14, "Licensing Approach for Uranium In Situ Recovery Facility Applications"
4. Regulatory Issue Summary 2011-11, "Regarding Long-Term Surveillance Charge for Conventional or Heap Leach Uranium Recovery Facilities Licensed Under 10 CFR Part 40"
5. Regulatory Issue Summary 2012-06, "NRC Policy Regarding Submittal of Amendments for Processing of Equivalent Feed at Licensed Uranium Recovery Facilities"
6. Regulatory Issue Summary 2014-08, Rev. 1, "Regulatory Requirements for Transfer of Control (Change of Ownership) of Specific Materials Licenses"
7. Regulatory Issue Summary 2015-09, "Decommissioning Timeliness Rule Implementation and Associated Regulatory Relief"
8. Information Notice 1999-03, Rev. 1: "Exothermic Reaction Involving Dried Uranium Oxide Powder (Yellowcake)"

Please revise the document to list the current guidance documents.

Comment resolved.

98. On page 927 of 1080, Appendix B to Subsection 4.6.2, under section Qualification Guide 4, Regulatory Guidance under subsection 3, NUREGs, there is a reference to NUREG/CR-5849 which has been superseded.

The following is an up-to-date list of NUREG and Regulatory guide references:

1. NUREG 1748, "Environmental Review Guidance for Licensing Actions Associated with NMSS Programs"
2. NUREG 1569, "Standard Review Plan for In Situ Leach Uranium Extraction License Applications"
3. NUREG/CR-6733, "A Baseline Risk-Informed, Performance-Based Approach for In Situ Leach Uranium Extraction Licensees"
4. NUREG-2126, "Standard Review Plan for Conventional Uranium Mill and Heap Leach Facilities, Draft Report for Comment"
5. NUREG-1910, "Generic Environmental Impact Statement for In-Situ Leach Uranium Milling Facilities"
6. NUREG-0706, "Final Generic Environmental Impact Statement on Uranium Milling"
7. NUREG-2173, "Tribal Protocol Manual"
8. NUREG- 1556, Vol. 15, Consolidated Guidance About Materials Licenses, Guidance About Changes of Control and About Bankruptcy Involving Byproduct, Source, or Special Nuclear Materials Licenses"
9. Regulatory Guide 3.11, Rev. 3, "Design, Construction and Inspection of Embankment Retention Systems at Uranium Recovery Facilities"
10. Regulatory Guide 3.46, "Standard Format and Content of License Applications, Including Environmental Reports, for In Situ Uranium Solution Mining"
11. Regulatory Guide 3.63, "Onsite Meteorological Measurement Program for Uranium Recovery Facilities – Data Acquisition and Reporting"
12. Regulatory Guide 4.14, Rev. 1, "Radiological Effluent and Environmental Monitoring at Uranium Mills"
13. Regulatory Guide 4.15, "Quality Assurance for Radiological Monitoring Programs (Inception through Normal Operations to License Termination) – Effluent Streams and the Environment"
14. Regulatory Guide 4.22, "Decommissioning Planning During Operations"
15. Regulatory Guide 8.22, Rev. 2, "Bioassay at Uranium Mills"
16. Regulatory Guide 8.30, Rev. 1, "Health Physics Surveys in Uranium Recovery Facilities"
17. Regulatory Guide 8.30, Rev. 1, "Information Relevant to Ensuring that Occupational Radiation Exposures at Uranium Recovery Facilities will be as low as is Reasonably Achievable"

Please revise the document to list the current guidance documents.

Comment resolved.

99. On page 991 of 1080, Appendix A to Subsection 4.7, Section 1.0, all of the references to FSME (Office of Federal, State, Material and Environmental Management Programs) need to be replaced with references to NMSS (Office of Nuclear Material Safety and Safeguards).

Please revise the document to reference NMSS (Office of Nuclear Material Safety and Safeguards).

Comment resolved.

Section I.C. Prior Comments on Wyoming's Regulatory Provisions

The NRC also included an update on the status of prior outstanding comments on Wyoming's regulatory provisions in the April 20, 2017 letter to Wyoming. The following section directly quotes from the April 20, 2017 letter and uses the same comment numbers and subheadings. The current status for each comment is noted in bold.

October 3, 2016 NRC letter to Wyoming on Part 20 (ML16123A034)

Prior to receiving the draft application package, the NRC sent comments on Wyoming's proposed Part 20 regulations. The NRC originally had 33 comments on Wyoming's Part 20 regulations. The NRC sent a letter to Wyoming on October 3, 2016 letter identifying whether prior comments were resolved or still outstanding. The following comments, 100 through 105, were identified as still outstanding in the October 3, 2016 letter. The staff has reviewed Wyoming's final application package to see if these outstanding comments were resolved or still remain outstanding. The original comments that were identified as resolved in the October 3, 2016 letter are excluded in 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.

Comment resolved.

101. Comment 2 in the NRC’s October 3, 2016 letter. 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.

Comment resolved.

102. The following comment numbers correspond to the comments listed in NRC’s October 3, 2016 letter. 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.

Comment resolved.

The following comments are listed as comments 10, 11, and 12 in NRC's October 3, 2016 letter.

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.

Comment modified. "Licensed Material" should be revised to state "source material or ores" instead of "source material and ores."

103. Comment 16 in NRC's October 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.

Comment resolved.

105. The following comment numbers correspond to the comments listed in NRC's October 3, 2016 letter.

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 October 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.

Comment resolved.

106. Comment 29 listed in the NRC’s

107. October 3, 2016 letter. 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.

Comment resolved.

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

The following comments were previously provided in the NRC’s October 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.

108. Chapter 4, Licensing Requirements, Section 1

- Comments 1, 2 and 3 still stand.
- Comments 7 and 9 still stand.

Comment 1 from NRC’s October 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 resolved.

Comment 2 from NRC’s October 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 resolved.

Comment 3 from NRC’s October 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 resolved.

Comment 7 from NRC’s October 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 resolved.

Comment 9 from NRC's October 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.

Comment resolved.

Section II: Additional Comments on the Draft Wyoming Application for a Limited Agreement related to Inspection, Licensing, Allegations, and Enforcement Procedures²

Section II.A. Comments on the Revised Procedures

The following section directly quotes the comments that were included in the NRC's December 7, 2017 email to Wyoming and uses the same headings and comment numbers. The NRC's email provided comments on the Wyoming's revised procedures submitted on August 16, 2017. The current status for each comment is noted in bold.

Subsection 4.3 – Licensing Program Elements

1. On page 3 of 296, the last paragraph states, "In licensing research and development, medical uses, or other activity involving multiple uses of materials, the State may issue broad scope licenses without evaluating each specific use."

Please delete this paragraph. This language is inconsistent with the scope of the Agreement.

Comment stands, pending review of the revised final application package to verify Wyoming implemented the proposed change.

2. On page 4 of 296, the last paragraph in section 4.3.4 states, "If the NRC will not transfer a licensed site or an application for a site license, and there is no reasonable expectation of an application for a license being submitted in the foreseeable future, the State may assume the authority without having the resources and procedures in place. In this case, information showing that the State has the authority to acquire the resources and adopt appropriate procedures before undertaking the implementation of a program, accompanied by the conceptual description of the program, is sufficient."

² December 7, 2017 email (ML18019B207) after review of the procedures provided on August 16, 2017 (ML17241A115) Wyoming provided for review the final draft procedure for the Inspection Program, Licensing Program, Allegations Program, and the Enforcement Program.

This paragraph is not clear. It is understood by NRC staff that this paragraph is referring to the American Nuclear Corporation site. In order to avoid confusion, the NRC staff recommends that Wyoming clarify the intent of this paragraph.

Comment stands, pending review of the revised final application package to verify Wyoming implemented the proposed change.

3. On page 6 of 296, the last sentence in section 4.3.6 states, "The State may propose an alternative to transferring licenses, if desired."

This statement does not appear to be applicable to the program. The NRC staff recommends that Wyoming clarify what is meant by an "alternative".

Comment stands, pending review of the revised final application package to verify Wyoming implemented the proposed change.

Appendix A to Subsection 4.3 – Licensing Procedure Manual

4. On page 11 of 296, Item 11 refers to NUREG-1757. This reference only refers to materials facilities and is not applicable to uranium recovery facilities. The NRC staff recommends removing this reference from the procedures.

Additionally, the first paragraph under section 2.0 states, "Radioactive materials licensing is a process whereby applicants are approved to receive, possess, and use licensed materials governed by the URP in Wyoming." The statement excludes on-site disposal of tailings. If these activities of on-site disposal of tailings will be regulated by Wyoming, the NRC staff recommends that Wyoming include activities of on-site disposal of tailings in the statement.

Comment stands, pending review of the revised final application package to verify Wyoming implemented the proposed change.

5. On page 12 of 296, under section 2.2, it states, "The license review is based on common sense, scientific and health physics principles."

Given that common sense is subjective, the NRC staff recommends the phrase be revised to state, "The license review is based on regulations, guidance, scientific, and health physics principles."

Comment stands, pending review of the revised final application package to verify Wyoming implemented the proposed change.

6. On page 13 of 296, under section 2.4, it states, "License reviewers should remember that good health physics practices guide the reviewers' evaluations of any action."

NRC staff recommends that this sentence be changed so that it states, "License reviewers should remember that good health physics practices, earth science, and engineering principles guide the reviewers' evaluations of any action."

Comment stands, pending review of the revised final application package to verify Wyoming implemented the proposed change.

7. On page 14 of 296, under section 3.1 (c), it states, “Any licensee who does not send the license renewal in a timely manner receives a letter acknowledging URP receipt of the renewal, however this letter may also describe any stipulations or notices resulting from the late submittal. Please note that some renewal submissions may require enforcement action such as a Notice of Violation if the license being renewed has already expired.”

On page 21 of 296, under section 3.12 (c), it states, “The issuance of a new license number when the original license has expired will be reviewed on a case-by-case basis.”

There are several sections in the procedures that refer to expired licenses. NRC staff recommends with regard to expired licenses that these procedures require a site to come into timely renewal and to ensure financial assurance is in place.

Comment stands, pending review of the revised final application package to verify Wyoming implemented the proposed change.

8. On page 16 of 296, under section 3.8 (b), it states, “Confirm that all financial assurance documents have been received and are being processed and approved through the WYDEQ Administration Division. The URP cannot issue a new license without payment.”

If the above statement excludes discussion on decommissioning financial assurance, the NRC staff recommends with regard to the above phrase including a discussion on decommissioning financial assurance.

Under section 3.8 (f), it states, “Coordinate with the different divisions within WYDEQ, including LQD, Solid and Hazardous Waste Division (SHWD), Air Quality Division (AQD), and WQD for their concerns with amendments to the license and any aspects of their programs which will be impacted by the license amendment, including permit forms, reclamation, waste management, injection well and monitor well abandonment, etc.”

The above statement discusses license amendments although the section is titled New License Applications. License Amendments are discussed in section 3.10. The NRC staff recommends that Wyoming move the above statement to the more appropriate section.

Comment stands, pending review of the revised final application package to verify Wyoming implemented the proposed change.

9. On page 18 and 19 of 296, there are sections that refer to the decontamination criteria for the uranium recovery program.

It is implied that licensees will be required to remediate to this criteria. The NRC staff recommends that Wyoming provide a discussion on the applicability of these decontamination criteria. Additionally, the NRC staff recommends including a discussion to long-term boundary care and institutional controls.

Comment stands, pending review of the revised final application package to verify Wyoming implemented the proposed change.

10. On page 20 of 296, section 3.11 (f) discusses the coordination with NRC for decommissioning and termination of licenses. There is no discussion of review of the Long Term Surveillance Plan (LTSP) or the Long Term Surveillance Boundary. Wyoming should include their input regarding the Long Term Surveillance Plan and the Long Term Surveillance Boundary in this section.

Comment stands, pending review of the revised final application package to verify Wyoming implemented the proposed change.

11. On page 21 of 296, section 3.12 (b) cites the Wyoming equivalent to the NRC Timeliness Rule which can be found in 10 CFR 40.42.

Wyoming should clarify how this rule applies to conventional mills versus in-situ recovery facilities.

Comment stands, pending review of the revised final application package to verify Wyoming implemented the proposed change.

12. On page 22 of 296, under section 4.1, it states, "For non-licensed sites, decommissioning includes documenting in correspondence to the site owner that the facility or site is released for unrestricted use."

The NRC staff recommends that Wyoming clarify the term "non-licensed sites" in their procedures. This term is not defined and is not clear in the procedures.

Comment stands, pending review of the revised final application package to verify Wyoming implemented the proposed change.

13. On page 22 of 296, under section 4.2, it states, "The dose based criteria for termination of a license are located in Criterion 6 of Appendix A of 10 CFR Part 40."

Please revise this sentence to state the following: "The concentration based criteria for termination of a license are located in Criterion 6 of Appendix A of 10 CFR Part 40."

Comment stands, pending review of the revised final application package to verify Wyoming implemented the proposed change.

14. On page 23 of 296, under section 4.2, it states, “The applicant must address the components of Section 6.0 in NUREG-1569 in the development of their decommissioning plan. The reviewer(s) will use NUREG-1569 for a completeness evaluation of the applicant’s Decommissioning Plan. Further technical review will be required to be completed by knowledgeable staff or subject matter experts.”

Please clarify that NUREG-1569 is applicable only to in-situ recovery facilities and not conventional mills.

Comment stands, pending review of the revised final application package to verify Wyoming implemented the proposed change.

15. On page 23 of 296, under section 4.2 (c), it states, “The applicant must maintain a financial surety to cover potential restoration costs in the event that monitoring results are contrary to model predictions and groundwater restoration must be initiated.”

Guidance in NUREG-1757, Volume 1, states that based on a review of the Decommissioning Funding Plan, the regulatory authority will determine whether the cost estimate submitted by the licensee adequately reflects all of the costs necessary to carry out all required decommissioning activities prior to license termination and, if the license is being terminated under restricted conditions, to enable an independent third party to assume and carry out responsibilities for any necessary control and maintenance of the site.

The Decommissioning Funding Plan is not be based solely on monitoring results that are contrary to model predictions. The NRC staff recommends that Wyoming clarify all the bases used to develop a Decommissioning Funding Plan.

Comment stands, pending review of the revised final application package to verify Wyoming implemented the proposed change.

16. On page 24 of 296, section 4.5 is titled Decommissioning Restricted Use and Alternate Criteria. There does not exist any alternate criteria and all conventional mill sites with tailings are restricted use. A better title to the section is Decommissioning Restricted Use Criteria. Additionally in this section, please include the statement that the NRC should accept the LTSP prior to license termination.

Additionally, it states, “URP staff will review the information supplied by the licensee to determine if the description of the activities undertaken by the licensee is adequate to allow the staff to conclude that the licensee has complied with the applicable requirements of 10 CFR Part 40, Appendix A for those licensees who intend to request termination of their radioactive materials licenses. The basic dose-based requirement for license termination for land areas is Criterion 6 of Appendix A of 10 CFR Part 40. After the URP has determined standards are met, URP will develop the CRR to be sent to the NRC for concurrence. The CRR will be developed in accordance with NRC document NMSS Agreement State Procedure Approval SA-900, “Termination of Uranium Milling Licenses in Agreement States.” Once concurrence from the NRC is achieved the license will be terminated.”

There is no reference to a LTSP for the tailings impoundments. Please modify the above section to include a reference for a LTSP.

Comment stands, pending review of the revised final application package to verify Wyoming implemented the proposed change.

17. On page 26 of 296, under section 4.7 (b), it states in the first sentence of the second paragraph, "At least one inspection should be conducted while the site is being characterization for major decommissioning efforts that . . ."

Please revise this to say, "At least one inspection should be conducted while the site is being characterized for major decommissioning efforts that . . ."

Comment stands, pending review of the revised final application package to verify Wyoming implemented the proposed change.

18. On page 26 and 27 of 296, there are references in the procedures to safeguards requirements, safeguard inspections, and criticality safety. Please delete these references. This language is inconsistent with the scope of the Agreement.

Comment stands, pending review of the revised final application package to verify Wyoming implemented the proposed change.

19. On page 27 of 296, under section h, please clarify the difference between the "final survey plan" and the "final survey report". The two terms appear to be used interchangeably. Additionally, it appears section h (2) neglects to discuss the rationale for confirmatory surveys with regard to addressing the decommissioning criteria. Please clarify the use of the terms "final survey plan" and "final survey report" and add the rationale for confirmatory surveys with regard to addressing the decommissioning criteria.

Comment stands, pending review of the revised final application package to verify Wyoming implemented the proposed change.

20. On page 28 of 296, in section 4 there is no discussion for the approval of contractors or labs for performing surveys or analyzing samples by the State of Wyoming. The NRC staff recommends that Wyoming provide a discussion for the approval of contractors or labs performing surveys or analyzing samples. Also, the NRC staff recommends that Wyoming indicate that only approved contractors or laboratories will be used for performing surveys or analyzing samples for the State.

Comment stands, pending review of the revised final application package to verify Wyoming implemented the proposed change.

21. On page 43 of 296, under section IV (D), it states, "Data from the nearest official weather reporting station(s) may be used. However, if operations are more than 50 miles from an official weather station that is permanently staffed, or orographic effects preclude acceptable extrapolation of data, an on-site meteorological station may be required. For uranium or thorium recovery facilities, the applicant should

include any additional meteorological measurement program requirements found in NUREG 1569 Section 2.5.1.”

This statement conflicts with NUREG-1569 and Regulatory Guide (RG) 3.63. NUREG-1569 indicates that data should be obtained from NWS stations within 50 miles of the site and the data can be used only if it is representative of the site. If these conditions are not met, an on-site meteorological station will be needed to gather the data as discussed in RG 3.63. If one year of data is collected on site, the data needs to be representative of long-term conditions as discussed in RG 3.63.

The NRC staff recommends that Wyoming revise the requirement to be consistent with NRC guidance,

Comment stands, pending review of the revised final application package to verify Wyoming implemented the proposed change.

22. On page 65 of 296, under section VI (Q), it states, “Include a section that summarizes all reporting requirements and include a table that lists all items that are to be reported to LQD. The table should include type of report, content summary, frequency of report, etc.”

It appears that the above statement refers to instructions to LQD with regard to reporting requirements to the licensees. The NRC staff recommends that Wyoming replace the statement with the Wyoming reporting requirements with references for the semiannual effluent and monitoring reports that are required by 10 CFR 40.65.

Comment stands, pending review of the revised final application package to verify Wyoming implemented the proposed change.

23. On page 68 of 296, under section VII (B), it states, “The data should be evaluated against baseline quality and variability to determine if the restoration goal is met - the primary restoration goal is always baseline. The secondary goal is to restore the water within class of use. The secondary goal of restoration within class of use is applicable for "problem" parameters if and only if BPT has been demonstrated.”

NRC staff recognizes the restoration standards in NUREG-1569, Section 6.1.3 (4) is not consistent with 10 CFR Part 40, Appendix A. Regulatory Issue Summary 2009-05, “NRC REGULATORY ISSUE SUMMARY 2009-05 URANIUM RECOVERY POLICY REGARDING: (1) THE PROCESS FOR SCHEDULING LICENSING REVIEWS OF APPLICATIONS FOR NEW URANIUM RECOVERY FACILITIES AND (2) THE RESTORATION OF GROUNDWATER AT LICENSED URANIUM IN SITU RECOVERY FACILITIES,” corrected the error to the guidance in NUREG-1569 regarding restoration standards.

The NRC staff recommends that Wyoming revise the above statement such that the restoration standards will reflect the requirements as found in 10 CFR Part 40, Appendix A, Criterion 5.

Comment stands, pending review of the revised final application package to verify Wyoming implemented the proposed change.

24. On page 215 of 296, under section I, it states, "NUREG 1569 Section 2.2.3(2), 22½-degree sectors centered on the 16 cardinal compass points is not required."

Not including the 16 cardinal points is inconsistent with the guidance in RG 3.63. The NRC staff recommends that Wyoming include the 16 cardinal points.

Comment stands, pending review of the revised final application package to verify Wyoming implemented the proposed change.

25. On page 216 of 296, in the first table of II. Reference, the table includes a statement, "Note on RG 1.86: For the release for unrestricted use of materials and equipment, guidance is included in NUREG-1757, Vol. 1, describing the current NRC staff practice for release of materials and equipment. In addition, RG 8.21, "Health Physics Surveys for Byproduct Material at NRC Licensed Processing and Manufacturing Plants," RG 8.23, "Radiation Safety Surveys at Medical Institutions," and RG 8.30, "Health Physics Surveys in Uranium Recovery Facilities," provide information similar to that included in Table 1 of RG 1.86. Specifically, Table 1 in RG 1.86 is now included in RG 8.23 and is titled, "Table 3 Acceptable Surface Contamination Levels for Uncontrolled Release of Equipment."

The NRC staff notes that current Wyoming NRC licensees are required by license condition to follow the "Guidelines for Decontamination of Facilities and Equipment Prior to Release for Unrestricted Use or Termination of Licenses for Byproduct, Source, or Special Nuclear Material," dated April 1993 (the guidelines). See (ADAMS Accession No. ML003745526). The guidelines should be referenced in the Wyoming Agreement State application since licensees are required to follow this guidance in their licenses.

Comment stands, pending review of the revised final application package to verify Wyoming implemented the proposed change.

26. On page 238 of 296, in Appendix D-11, it states, "Monitoring Program including frequency, sampling methods, and sampling locations and density are in accordance with Regulatory guide 4.14 Section 1.1. Air monitoring stations are located in a manner consistent with the principal wind directions outlined in Appendix D-4."

Eliminating the cardinal directions discussed in comment 24 will make review of monitoring programs difficult. The NRC staff recommends that Wyoming include the 16 cardinal points.

Comment stands, pending review of the revised final application package to verify Wyoming implemented the proposed change.

27. On page 271 of 296, under section IV (a), it states, "Please see Appendix C of NUREG-1569 for additional guidance."

Appendix C of NUREG-1569, is for cost estimates. Please verify if this is the correct reference.

Comment stands, pending review of the revised final application package to verify Wyoming implemented the proposed change.

28. On page 274 of 296, under section VI, it states, "For an EIS, the environmental information is reviewed by the EPAD EIS Project Manager."

This reference is out of date. Please refer to the person in the Wyoming program who will review environmental information.

Comment stands, pending review of the revised final application package to verify Wyoming implemented the proposed change.

29. On page 275 of 296, under section VIII, it states, "For Part 70 licensees, a summary of how the licensee will ensure that the risks addressed in the facility's Integrated Safety Analysis will be addressed during decommissioning."

The NRC staff recommends that Wyoming revise that statement in referring to Part 70 licensees. 10 CFR Part 70 is outside of the scope of the Wyoming Agreement, and Wyoming will not have Part 70 licensees.

Comment stands, pending review of the revised final application package to verify Wyoming implemented the proposed change.

30. On page 277 of 296, under section VIII (e), item 2 states, "A statement acknowledging that the dates in the schedule are contingent upon NRC approval of the DP."

Item 3 states, "A statement acknowledging that circumstances can change during decommissioning, and, if the licensee determines that the decommissioning cannot be completed as outlined in the schedule, the licensee will provide an updated schedule to NRC."

Item 4 states, "If the decommissioning is not expected to be completed within the timeframes outlined in NRC regulations, a request for alternative schedule for completing the decommissioning."

Please remove references to the NRC and replace with "the State of Wyoming".

Comment stands, pending review of the revised final application package to verify Wyoming implemented the proposed change.

31. On page 283 of 296, under section XII (a), it states, “A summary of the volumes of Class A, B, C, and Greater-than-Class-C solid radwaste that will be generated by decommissioning operations.”

Please remove the reference to Greater-than-Class-C waste.

Comment stands, pending review of the revised final application package to verify Wyoming implemented the proposed change.

32. On page 284 of 296, under section XII (a), it states, “Please see Appendix C of NUREG-1569 for additional guidance.”

Please verify if Appendix E is the appropriate reference.

Comment stands, pending review of the revised final application package to verify Wyoming implemented the proposed change.

33. On page 284 of 296, under section XII (b), it states, “A summary of the estimated volumes of Class A, B, C, and Greater-than-Class-C liquid radwaste that will be generated by decommissioning operations.”

Please remove the reference to Greater-than-Class-C waste. This type of waste is not included within the scope of the Agreement.

Comment stands, pending review of the revised final application package to verify Wyoming implemented the proposed change.

34. On page 284 of 296, section XII (c) is titled Mixed Waste.

Please delete this section titled Mixed Waste. This waste type is not included within the scope of the Agreement.

Comment stands, pending review of the revised final application package to verify Wyoming implemented the proposed change.

Appendix A to Subsection 4.7 – Event and Allegation Response Procedural Manual

General Comment: In your application, you do not specify whether Wyoming’s Department of Environmental Quality has an existing procedure for the handling and disposition of complaints and/or allegations. If WYDEQ has such a procedure, reference(s) to this Department procedure can be used to provide responses and supplement the URP allegation procedure.

35. On page 8 of 61, under section 2.3 (b) (iv), it states, “Evaluate the need for a hazardous chemical consultant. The NRC Operations Center can help contact chemical safety experts at NRC. The EPA may also be contacted for logistical assistance from an EPA On-Site Coordinator. EPA and NRC phone numbers may be found in Section 4 of this manual.”

Please remove references to the NRC in the paragraph and insert the appropriate State information.

Comment stands, pending review of the revised final application package to verify Wyoming implemented the proposed change.

36. On page 10 of 61, under section 2.8 (a) (ii), it states, “Availability of radiation monitoring resources near scene of incident (State Radiological Health Dept., DOE Radiological Assessment teams, NRC regional offices, licensee’s qualified staff, hospital, or university with radiation protection technicians).” Please verify that the State Radiological Health Department is the correct Wyoming Agency referenced in the sentence. If not, please correct.

Comment stands, pending review of the revised final application package to verify Wyoming implemented the proposed change.

37. On page 13 of 61, under section 2.14 (b), it states, “If additional assistance is needed, NRC staff can call the Radiation Emergency Assistance Center/Training Site (REAC/TS) at 865-576-1005.”

Please remove this sentence indicating the NRC staff will contact the Radiation Emergency Assistance Center, and replace with a statement indicating that Wyoming staff will contact REAC/TS.

Comment stands, pending review of the revised final application package to verify Wyoming implemented the proposed change.

38. On page 17 of 61, under section 3.6 in the second paragraph, it states, “If the request for no contact is made in writing, or it is not clear that the URP employee receiving the verbal contact has explained the advantages of the alleged’s continued involvement in the allegation process, then the responsible branch URP staff member will attempt an additional contact with the alleged.”

Wyoming does not state it would attempt to make an additional contact to inform an alleged that the State is considering sending a Request For Information (RFI) to the licensee after the alleged requested no further contact with the State.

Under section 3.12 (f) (iv), Wyoming states that a reasonable effort will be made to contact an alleged before issuing an RFI letter. It is not clear the State will attempt to make an additional contact the alleged when the alleged asked not to be contacted further under section 3.6.

For comparison, in the Handbook of Management Directive 8.8, “Management of Allegations”, in section II (B) (6) (c) (ii), it states that the NRC will attempt an additional contact to inform the alleged, that had requested no further contact before sending the RFI, to see if the alleged had any objections to issuing the RFI. Please clarify and align the two statements in sections 3.6 and 3.12.

Comment stands, pending review of the revised final application package to verify Wyoming implemented the proposed change.

39. On page 18 of 61, under section 3.8 in the fourth paragraph, it states, “For an allegor who has been granted confidential source status, identity protection is also referred to as confidentiality. See Attachment C, “Glossary,” of this manual for definitions of “identity protection”, “confidentiality”, and “confidential source”.”

Wyoming procedures lack a reference to a section discussing the granting and revoking of confidential source status. The Wyoming allegation procedures should include a section discussing how confidential source status will be granted and revoked, that can be referenced in the fourth paragraph of section 3.8. The procedures for explaining how granting and revoking confidential status will occur are needed to fulfill the essential element in NMSS Agreement State Procedure Approval SA-700, “Handbook for Processing an Agreement”, section 4.7.1.2, titled Evaluation Criteria.

The procedures should also provide for protection of the identity of a person making an allegation when requested. (See the Handbook of Management Directive 8.8, “Management of Allegations”, section II (F) (3) (b) and section IV for further information on granting and revoking confidential source status.)

Comment stands, pending review of the revised final application package to verify Wyoming implemented the proposed change.

40. On page 18 of 61, under section 3.8 in the tenth paragraph, it states, “Approval of the applicable regional administrator or headquarters office director is required if the licensee is to be informed that the inspection activity is related to an allegation.” The paragraph also states “The licensee is notified when it is deemed necessary during the conduct of an inspection requested by a worker in accordance with 10 CFR Part 19.16(a).”

Please replace references to the regional administrator or headquarters office director with the equivalent Wyoming staff. Please also replace references to the Code of Federal Regulations with the equivalent Wyoming regulation.

Comment stands, pending review of the revised final application package to verify Wyoming implemented the proposed change.

41. On page 19 of 61, under section 3.9, please include more detailed information in the procedure on who would make a decision in “upper management” to release an allegor’s identity who wanted confidentiality, how the allegor would be notified and how the allegor would be advised about confidential source status. (See the Handbook of Management Directive 8.8, “Management of Allegations”, sections II (F) (12) (c) and II (F) (13) for further information.)

Comment stands, pending review of the revised final application package to verify Wyoming implemented the proposed change.

42. On page 19 of 61, under section 3.10, the procedures should provide more information about how URP will work with the Department of Labor regarding allegations involving discrimination in order to meet the essential objectives in NMSS Agreement State Procedure Approval SA-700, “Handbook for Processing an

Agreement”, section 4.7.1.2, titled Evaluation Criteria, to address allegation response, follow-up, closeout, provide for protection of the identity of a person making an allegation, and protection of other sensitive information. Section 3.10 can reference other relevant state procedures or provide more information in the URP procedures similar to the level of detail in the Handbook of Management Directive 8.8, “Management of Allegations”, section III (A).

Comment stands, pending review of the revised final application package to verify Wyoming implemented the proposed change.

43. On page 20 of 61, under section 3.11, the procedures should provide additional information on how allegations will be processed after they are referred to upper management. This information should include the title of the upper management personal making these decisions. Wyoming can reference other State procedures, or develop further information in the URP procedures using the Handbook of Management Directive 8.8, “Management of Allegations”, sections II (H), II (I), and II (J) or another Agreement State procedures as guidance.

Comment stands, pending review of the revised final application package to verify Wyoming implemented the proposed change.

44. On page 21 of 61, under section 3.11 (c), there should be a requirement in this section stating that the information concerning the identity of the allegor, and any information that the NRC will classify as sensitive unclassified non-safeguards or safeguards information must be stored in an approved storage container. Please identify the location of the approved storage container. (See the Handbook of Management Directive 8.8, “Management of Allegations”, section II (H) (4) for guidance).

Comment resolved.

45. On page 23 of 61, under section 3.12 (f) (v), bullet 5 states, “The licensee is also expected to note any violation of URP requirements identified during the course of the review.”

Please revise the paragraph to state, “The licensee is expected to note any instance identified during the course of its review in response to a request for information letter indicating that an URP requirement may have been violated.” The URP has to determine whether a violation of a URP requirement occurred, not the licensee.

Comment stands, pending review of the revised final application package to verify Wyoming implemented the proposed change.

46. On page 25 of 61, under section 3.12, the NRC staff recommends that Wyoming provide a standardized request for information letter that can be referenced in this procedure. (Exhibit 14 in NRC Allegation Manual provides a sample request for information letter to a licensee.)

Comment stands, pending review of the revised final application package to verify Wyoming implemented the proposed change.

47. On page 25 of 61, under section 3.12 (g) (ii), it states, “If, after the URP is described to an individual who contacts NRC with concerns about an URP licensee, the concerned individual agrees to contact and be contacted directly by the URP, the concerns are provided to the appropriate Regional State Agreements Officer (RSAO) for referral to the URP and are not processed as allegations.”

Please delete the phrase “and are not processed as allegations”. The phrase refers to the NRC’s practice of tracking Agreement State performance concerns and is not relevant to the Wyoming procedures.

Comment stands, pending review of the revised final application package to verify Wyoming implemented the proposed change.

- 48 On page 25 of 61, under section 3.12 (g) (iii), it states, “If the concerned individual is unwilling to contact or to have his or her identity disclosed to the URP, the allegation program is used to track the evaluation of the concerns raised about the URP license.”

Please remove this paragraph. It refers to the NRC practice of tracking Agreement State Performance Concerns and is not relevant to the Wyoming procedures.

Comment stands, Wyoming needs to address this comment.

49. On page 25 of 61, under section 3.12 (i), the paragraph appears to discuss the referral of allegations or concerns to other Agreement States. If that is the intent of the paragraph, please revise to clearly specify the process that will be followed. If that is not the intent of the paragraph, please include a section in the procedures that clearly states the process for referring allegations and performance concerns to other Agreement States.

Comment stands, pending review of the revised final application package to verify Wyoming implemented the proposed change.

50. On page 26 of 61, under section 3.14, this section should include further information including: 1) having a sample closure letter in the procedure; and 2) providing more information on how the staff will handle closures involving enforcement matters. (Exhibits 18 and 20 of the NRC Allegation Manual provides sample closure letters, and the Handbook of Management Directive 8.8, “Management of Allegations”, section II (L) (4) provides further information on handling the closure of allegations related to enforcement matters.)

Comment stands, pending review of the revised final application package to verify Wyoming implemented the proposed change.

51. On page 29 of 61, under section 3.17, it states, “Ideally, all allegations concerning a particular licensing or certification matter will be satisfactorily resolved by the applicant before any license or certificate is issued.”

Please revise the first sentence in the paragraph to state, “Ideally, all allegations concerning a particular licensing, certification or operational matter will be satisfactorily resolved by the applicant before any license or certificate is issued or any operational decision is made.” This change is necessary to state that allegations

also cover the licensee's operational activities that may not be involved with issuance of a license or certification. (For guidance see the Handbook of Management Directive 8.8, "Management of Allegations", sections II (P) (1-3).)

Comment stands, pending review of the revised final application package to verify Wyoming implemented the proposed change.

52. On page 32 of 61, in Attachment A, at the top of the page remove the phrase, "NRC Review By."

Comment stands, pending review of the revised final application package to verify Wyoming implemented the proposed change.

53. On page 33 of 61, the Allegation Report Form is incorrectly labeled as Appendix B when it should be labeled as Attachment B.

Comment stands, pending review of the revised final application package to verify Wyoming implemented the proposed change.

54. On page 36 of 61, in Attachment C under the Glossary, please revise the definition of the term "Allegation" to remove references to NRC regulatory provisions and NRC employees or NRC contractors. Replace these references with the appropriate Wyoming Program information.

Comment stands, pending review of the revised final application package to verify Wyoming implemented the proposed change.

55. On page 36 of 61, in Attachment C under the Glossary. Recommend defining the following words using Wyoming equivalent terms for: "Allegation File," "Allegation Guidance Memorandum," "Allegation Management System" and "Allegation Manual".

Comment stands. Wyoming is considering the comment.

56. On page 36 of 61, in Attachment C under the Glossary. Please revise the definition of "Alleger" to state, "An individual who or an organization that submits an allegation to URP or NRC or that provides information in a public forum that is recognized as an allegation. Anonymous concerns are accepted."

Comment stands, pending review of the revised final application package to verify Wyoming implemented the proposed change.

57. On page 36 of 61, in Attachment C under the Glossary. Recommend providing a model confidentiality agreement as an attachment to Subsection 4.7 Appendix A. Wyoming can use other Wyoming agencies', other Agreement States' or the NRC's model confidentiality statements to develop their model. (Exhibit 5 of the NRC Allegation Manual provides a sample Confidentiality Agreement.)

Comment stands, pending review of the revised final application package to verify Wyoming implemented the proposed change.

58. On page 36 of 61, in Attachment C under the Glossary. Recommend defining the following words using Wyoming equivalent terms for: "Discrimination," "Licensee," "Referral," and "Staff."

Comment stands. Wyoming is considering the comment

59. On page 36 of 61, in Attachment C under the Glossary. Please revise the definition of "Emergency Incident" to indicate it requires activation of the Wyoming response program instead of the NRC's Incident Response Program.

Comment stands, pending review of the revised final application package to verify Wyoming implemented the proposed change.

60. On page 38 of 61, in Attachment C under the Glossary, the definition of inspection states, "A special activity usually conducted by regional office and/or headquarters office staff, and used to evaluate an allegation."

Please revise the definition to state, "For the purposes of this procedure, an evaluation conducted by the Wyoming staff and used to evaluate an allegation." The revision removes the reference to the NRC and clarifies the inspections are related to an allegation.

Comment stands, pending review of the revised final application package to verify Wyoming implemented the proposed change.

61. On page 38 of 61, Attachment C under the definition of Protected Activity, discusses NRC activities. Wyoming should revise the definition to identify what Wyoming activities apply to this definition.

Comment stands, pending review of the revised final application package to verify Wyoming implemented the proposed change.

Section II.B. Additional Comments on the Draft Application

The following section directly quotes the comment that was included in the December 7, 2017 email to Wyoming using the same heading and comment number. The current status for the comment is noted in bold.

Additional Comments on previous draft Application

1. On pages 928 and 955 of 1080, the staff notes that in the previous Wyoming Agreement State submission, the Wyoming Uranium Recovery Inspector Qualification Journal, Qualification Guide 4, references "Guidelines for Decontamination of Facilities and Equipment Prior to Release for Unrestricted Use or Termination of Byproduct, Source, and Special Nuclear Material Licensees," dated November 1983. The NRC has updated this guidance with, "Guidelines for Decontamination of Facilities and Equipment Prior to Release for Unrestricted Use or Termination of Licenses for Byproduct, Source, or Special Nuclear Material," dated April 1993. See (ADAMS Accession No. ML003745526).

Please ensure this and other references are up to date.

Comment stands, pending review of the revised final application package to verify Wyoming implemented the proposed change.

The following section are additional comments with regard the regulations that were incorporated by reference to NRC regulations. Additionally, there are comments related to reciprocity and general licensing. These comments do not need to be addressed prior to the transfer of the Agreement. These comments can be addressed by WYDEQ after the transfer of the Agreement. These comments are administrative in nature and have no impact on public health and safety.

Additional Comments on Wyoming Uranium Recovery Rules

General comment: Wyoming Uranium Recovery Program Rules, Chapter 4, Section 5, includes regulatory provisions that provide a Wyoming address where parties should file license applications. NRC staff recommends that Wyoming provide addresses where the public and licensees should send information required in other regulations incorporated by reference.

NRC staff have the following comments with regard to typos and errors and recommends making the following revisions the next time the State of Wyoming opens the regulations for revision.

1. Wyoming Uranium Recovery Program Rules Chapter 3—Radiation Protection Standard

- a. Section 4 (b)—Add “20.2004(a)(1), 20.2004(a)(2) and 20.2004(b)” to the list of provisions not incorporated by reference. None of these provisions in 10 CFR § 20.2004 pertain to Wyoming’s limited authority under their proposed Agreement.
- b. Section 4 (b)—Add “20.2206” and delete “20.2206(a)(1), 20.2206(a)(3), 20.2206(a)(4), 20.2206(a)(5)” from the list of provisions not incorporated by reference. None of the provisions in 10 CFR § 20.2206 pertain to Wyoming’s limited authority under their proposed Agreement.
- c. Section 4(b)—Add 10 CFR §20.2203(c) to the list of provisions not incorporated by reference. This provision references commercial nuclear power plants under 10 CFR Parts 50 and 52 and does not pertain to Wyoming’s limited authority under their proposed Agreement.
- d. Section 4(c) - Clarify whether the reference in Section 3(c) to the “NRC Operations Center” also covers “the NRC Document Control Desk” referenced in 10 CFR § 20.2203(d).

2. Wyoming Uranium Recovery Program Rules Chapter 4—Licensing Requirements for Source and Byproduct Material

- a. Section 3 (b)—Change “Section III Site and Byproduct Material Ownership, Criterion 9(h)(4)” to “Section II Financial Criteria, Criterion 9(i)(4).”
- b. Section 3 (b)—Add 10 CFR §§40.54 and 40.55 to the list of 10 CFR Part 40 provisions not incorporated by reference because general licenses will not be issued by WYDEQ
- c. Chapter 4, Section 3(c)—Delete references to 10 CFR §150.20 from Section 3(c). 10 CFR §150.20 should not be incorporated by reference. Since Wyoming anticipates the State will rarely receive any requests for reciprocity, Wyoming can provide information on their web site and procedures describing how other Agreement States and NRC licensees can obtain permission to conduct activities under Wyoming’s regulatory authority.
- d. Section 3—Add the following provision to clarify when the “NRC or Commission” means the “Department and Uranium Recovery Program” in the regulatory provisions incorporated by reference in Chapter 4.

Any reference in the federal rules adopted by reference to the U.S. Nuclear Regulatory Commission (NRC), or any component thereof, shall be deemed to be a reference to the Department and the Uranium Recovery Program, except when used in 10 CFR §§ 40.2a, 40.51(b)(2), and 150.31.

Section 3—Add the following provision in Chapter 4 (and any relevant Chapters) to clarify that “Commission or an Agreement State” or “Commission or the licensing agency of an Agreement State” also means “Wyoming, NRC, and other Agreement States” in the following regulatory provisions incorporated by reference.

A reference to “Commission or an Agreement State” or “Commission or the licensing agency of an Agreement State” means “Department, NRC, or Agreement State” in 10 CFR Parts 40.51(b)(5), 40.51(c), 40.51(d)(4), 40.51(d)(5).

3. Wyoming Uranium Recovery Program Rules Chapter 5—Notices, Instructions, and Reports to Workers

- a. Section 3 (b)—Add 10 CFR §19.4 to the list of provisions not incorporated by reference.

4. Wyoming Uranium Recovery Program Rules Chapter 9—Transportation

- a. Chapter 9 Section 3(b)—Add 10 CFR §71.17 to the list of provisions not incorporated by reference. Wyoming does not have authority to regulate any 11e.(1) byproduct material under the proposed limited Agreement.

- b. Chapter 9, Section 3(d)—Add 10 CFR §71.93 to the list of provisions not incorporated by reference. Wyoming does not have authority to regulate these activities under the proposed limited Agreement.