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DEPARTMENT OF HEALTH
OFFICE OF RADIATION PROTECTION
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July 23, 2015

Secretary
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555-0001
ATTN: Rulemakings and Adjudications Staff

RE: Docket ID NRC-2011-0012

On behalf of the state of Washington, below for your consideration are comments on 10 CFR Parts 20 and 61 Low-Level Radioactive Waste Disposal; Proposed Rule, as published in the Federal Register Vol. 80, No. 58, dated Thursday March 26, 2015.

1. The state highly recommends Part 61 be left "as is" as much as possible. Updating existing requirements in the sections is a good practice. However, since half of the existing sites do not plan on accepting significant quantities of the new long-lived alpha emitting radionuclides, the new requirements should be inserted into a new section (e.g., 61.60), or alternatively a new set of standalone regulations.

2. The state does not agree with the requirement to redo the site's performance assessment (PA) unless that site decides to take significant quantities of long-lived alpha emitters (e.g., DU). If we read 61.13(e) correctly, the PA is only needed if we **are going to take** long-lived alpha emitters.

3. The state concurs with the new requirement to redo a site's PA within 5 years of closure. This allows assumptions that were made years earlier to be reviewed and updated where needed. Unless absolutely needed, no new sampling should be need to be performed.; only updating:
    a. the inventory (adjust projected quantities),
    b. equation values such as k_d,

4. The state concurs that Defense-in-Depth information (e.g., several independent redundant barriers) should be available in pre-operational documents for each site. For current sites, retrofitting may be extremely difficult if the site is dependent on only one or two robust barrier(s).

5. The revised regulations introduce a new term called the Safety Case. Safety Cases (SC) are, in their simplest terms, a collection of arguments and evidence showing a facility can be sited, designed, constructed, commissioned, operated and closed in a safe manner. A key component of the safety case is the analytical safety assessment. The NRC equates the SC's to a PA + Defense-in-Depth. The exact form of a SC depends on the laws and regulations at a given site. Between radioactive materials licensing, performance assessments and a site environmental review (e.g., NEPA or state equivalent laws), the critical components of a SC will be addressed. Is this consistent with the NRC's Safety Case expectation?

6. The state supports a sited state's ability **through regulatory/licensing action** to develop site-specific waste classification levels (e.g., similar to 10CFR61.55 Tables). Site specific values will provide flexibility not currently in the regulations. The wording in the current proposed rule seems to allow the site operator to decide if other than 10CFR61.55 tables will be used. The rule needs to be clearly worded that the site regulator decides if site-specific values will be used.

7. Impacts of regulation changes on the development of new sites are unknown. The Nuclear Regulatory Commission in its Regulatory Basis for Proposed Revisions to Low-Level Waste Disposal Facilities (10 CFR Part 61) states in part that Performance Assessments' (PA) will be based largely on inference, development of models, and data acquisition to demonstrate 10 CFR Part 61 PA's are met.

   The state understands the nature of the uncertainty associated with near surface disposal of Low Level Radioactive Waste (LLRW) and the need for flexibility in a performance based regulatory approach. However, because the proposed rule is ambiguous in some parts it leaves open the opportunity for the following unintended consequences:

   - New proposed sites that want to dispose of alpha emitters may walk away from the siting process due to the risk associated with uncertainty within the regulation.
   - Varying interpretation of inference could create regulatory mission creep and a regulatory process that becomes too burdensome.
   - Creation of a complex patchwork of regulations that don't allow for a single standard of LLRW packaging.

   The unintended consequences can be minimized in the new proposed rule by adding context to its framework while at the same providing flexibility for existing LLRW sites.

8. The state supports the proposed Compatibility Levels for:
   a. 61.41(a), (b), and (c)
   b. 61.42(a), (b), and (c)

9. A regulatory back-fit analysis, although not required, should be performed for this revision.

10. Further details should be provided for review and comment on how the financial burden for implementation of this revision placed on sited Agreement State programs was derived. Initial review suggests the burden for some sites is underestimated by a factor of two.

11. Predictions of site stability for 10,000 years (required in 61.44) are subjective and filled with uncertainty. The state agrees with NRC staff in that site stability is critical to achieving the performance objectives of 61.41 and 61.42. What is not readily apparent is why the site stability performance objective (61.44) needs to stand alone in the NRC's world of performance based regulations. Due to concern over uncertainty, the NRC in the past several years, has reduced its timeframe for its public dose limit (0.25 mSv annually) compliance to 1000 years. Isn't the site stability performance objective subject to the same uncertainty?

12. The assigned dose stated in 61.41(b) and 61.42(b) for the Protective Assurance Periods (PAP) is not clear. As stated in these paragraphs, the annual dose shall be below 5 mSv or a level that is supported as reasonably achievable. Is the 5mSv an upper limit or are **higher levels** allowed if supported as reasonably achievable based on technological and economic considerations?

13. The state understands the Guidance for Conducting Technical Analyses for 10 CFR Part 61 (NUREG-2175) supports the current proposed rulemaking. The state appreciates the ability to review both the proposed rule and corresponding guidance at the same time. However, we suggest a new draft guidance document be released for additional review after the Commission approves Part 61.

14. The NRC has stated in public meetings and in the Federal Register Notice that the main reason for proposing changes to the current 10 CFR 61 is to ensure that low-level waste streams that are significantly different than the low-level waste streams that were considered in the current Part 61 can be addressed and disposed of in a manner that fully protects public health and safety. Furthermore, it has been stated that the existing set of regulatory criteria is adequate to protect public health and safety and the four operating disposal facilities have gone well above the fundamental requirements of Part 61. (See page 9 of Barnwell public meeting transcripts) In light of these statements, we believe that the current 61.1(a) regarding applicability and flexibility of the requirements for current waste disposal facilities be retained for the sites that do not plan to take new waste streams or significant quantities of the new long-lived alpha emitting radionuclides that were not envisioned in the original 10 CFR 61 analysis.

15. The Waste Acceptance Criteria is more subjective in the proposed rule. There should be a set of uniform criteria that is applicable to all LLRW disposal facilities as there currently is, and alternate characteristics should be allowed on a case by case basis as currently allowed in 10 CFR 61.58. Alternate characteristics would need to be well documented and reviewed by the NRC for compatibility and adherence to performance objectives.

If you should have any questions regarding these comments, please do not hesitate to contact me at (509) 946-0234 or at earl.fordham@doh.wa.gov

Sincerely,

Earl Fordham

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