

State of Washington Comments

A. Performance Assessment

NRC staff proposed a two-tiered approach for evaluating compliance with 10 CFR Part 61's site compliance to 20,000 years, and long-term assessment that extends beyond 20,000 years to the time of peak dose. Washington does not support this regulatory period of compliance. With uranium mills using 1000 years (or at least 200 years) for an evaluation period, to impose a substantially higher number for LLRW disposal sites appears arbitrary. In comparison, with a shorter timeframe, uranium in-growth and decay to Ra-226 is apparently less hazardous than radioactive waste decay. During the development of Washington's LLRW PA circa 2000, several discussions with the NRC took place on how far out to go. Little if any guidance was available. The NRC thought 10,000 years was conservative. Washington used this value for compliance, and a much longer period for peak dose. Washington supports flexibility in the two-tiered regulatory scheme to allow longer-lived waste streams such as DU.

Washington does support a tiered approach for the period of performance; a regulatory period using a reasonably foreseeable future date (e.g., 1000 – 10,000 years) for compliance with the dose standard, and a longer period extending to peak dose for informational (non-regulatory) use only. Under the policy of risk-informed performance based, a non-standard regulatory compliance period should be encouraged. Once controlling radionuclides are identified, site-specific modeling will yield the appropriate performance period.

Washington supports a site-specific analysis for not only large quantities of DU, but to cover the entire inventory disposed at a facility. By having the complete inventory site analysis, the site operator and regulator are better informed about potential public doses. And new, previously unanalyzed, waste streams (e.g., DU) can be evaluated much faster and cheaper. If the analysis is periodically updated, a safety margin (e.g., sum of fractions for controlling radionuclides) can be determined and risk-informed decisions made.

Performance assessments can be done in many different forms (e.g., deterministic, probabilistic). NRC's methodology may be different than an Agreement State's. Understanding NRC's technical requirements for modeling would be beneficial as long as the requirements are guidance and not rule.

Washington fully supports the use of the most current ICRP dose methodologies during the development of the PA. Once the PA is incorporated into the "final" product (whatever that may be, or be it a stand-alone document), states do not need to update the document unless they revise the "final" product.

B. Performance Objectives

New Part 61 needs to define “compliance period” and the post-compliance (e.g., “performance) period.

C. Compatibility Category

Washington recommends Compatibility Category C for site specific aspects. Part 61 has four standards currently listed. These fundamental requirements ensure worker safety, public safety, protection from inadvertent intrusion, and site stability after closure. Higher compatibility category assignment is not required as a site-specific PA and site-specific WAC do not constitute program definitions nor present trans-boundary issues.

D. Waste Classification

Washington supports the flexibility this action allows a site operator and state regulator. The flexibility exercised by a state must be limited to areas supported by the site’s PA. In areas not supported by a site’s PA, Part 61’s WAC should be used. The new table values still need to protect the inadvertent intruder. Isotopic table values need to be based upon site-specific waste form and packaging allowed, site characteristics, disposal practices, technologies employed, site appropriate scenarios and the probability of intrusion (currently assumed to = 1). Many of these factors are well established at the operating sites. Scenarios using probability of intrusion less than one should be permitted when obvious factors (e.g., USDOE burial grounds in close proximity) are present that would preclude abandonment.