



NUCLEAR INFORMATION AND RESOURCE SERVICE

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Comments of Nuclear Information and Resource Service RE:

Yucca Mountain Proposed Nuclear Waste Repository Supplemental EIS, NUREG 2184 Submitted to Docket # NRC-2015-0051 and Federal Register Vol 80, No 162, pages 50875—50877.

Before commenting on the document that NRC has docketed for comment, captioned above, NIRS first responds to Federal Register Notice: **Federal Register** / Vol. 80, No. 162 / Friday, August 21, 2015 / Notices pages 50875—50877. From that Notice:

II. Discussion This supplement evaluates the potential environmental impacts on groundwater and impacts associated with the discharge of any contaminated groundwater to the ground surface due to potential releases from a geologic repository for spent nuclear fuel and high-level radioactive waste at Yucca Mountain, Nye County, Nevada. This supplements DOE's 2002 "Final Environmental Impact Statement for a Geologic Repository for the Disposal of Spent Nuclear Fuel and High-Level Radioactive Waste at Yucca Mountain, Nye County, Nevada" and 2008 "Final Supplemental Environmental Impact Statement for a Geologic Repository for the Disposal of Spent Nuclear Fuel and High-Level Radioactive Waste at Yucca Mountain, Nye County, Nevada," in accordance with the findings and scope outlined in the NRC staff's 2008 "Adoption Determination Report for the U.S. Department of Energy's Environmental Impact Statements for the Proposed Geologic Repository at Yucca Mountain."

The assertion in the Federal Register Notice Discussion that the Supplement is an evaluation of "potential environmental impacts on groundwater..." means that the Nuclear Regulatory Commission (NRC) Staff has decided to write fiction. In order for an evaluation of environmental impacts of the proposed Yucca Mountain project to be rooted in reality, NRC staff would have to first update all of the documents that it states above the SEIS will be based on. Instead, NRC is engaging in fiction because it is using the same data and assumptions that the Department of Energy (DOE) proffered in its License Application for a repository at Yucca Mountain and the documents cited here (FEIS 2002 and FSEIS 2008). Here is a short rundown of a portion of the substantive revisions to the project that would require a revision to all of the basic assumptions in the DOE's prior evaluations and impact analyses.

- The Nuclear Regulatory Commission approved a higher enrichment fuel that stays in reactors longer producing a high-burnup waste (greater than 45 GigaWatt Days) which is thermally hotter, more highly radioactive, contains more fissile material (Plutonium and other transuranics), and more highly toxic elements, as well as more long-lasting fission products;

- The use of this new fuel and the process-history that goes with it reduces the integrity of fuel cladding raising questions about waste form;
- Hotter waste may mean less-full containers and therefore more shipments than contemplated;
- AND the Nuclear Regulatory Commission approved on-site dry storage in containers it certifies, but not supplied by the Department of Energy, violating the Standard Contract agreement for waste acceptance, raising many questions about what will happen to existing dry-store waste;
- AND the Department of Energy cut the plan for TAD containers for Transport Aging and Disposal that are a center-piece of the “System Architecture” for the Yucca proposal and featured in the existing FEIS from 2008, and therefore by reference in the Staff’s “Adoption Determination Report;”
- AND the President in 2015 issued an Executive Order that would remove the military waste from the Yucca repository proposal;
- The military waste had a key functional role in the proposed Yucca repository design because of its reduced heat load;

All of these pieces (and others not named here) are significant. Any one of them would substantially change the assumptions in DOE’s Total System Performance Assessment (TSPA), work done prior to 2008 and upon which the NRC staff rely to provide the “Starting point” for the current document NUREG 2184. Taken together, the factors enumerated here make the existing TSPA fiction; and therefore NRC Staff’s work on the SEIS fiction as well. (Appendix A of the SEIS documents the extent to which Staff relies on this out-dated document).

The fiction, in full form is this: that without starting over with all of these new starting points, NRC cannot have any reality-based idea what the “Source Term” (meaning waste characterization with chemical and physical properties and the amount of time it must be isolated in order to protect human health and safety) will be. If the Source Term is not known, and the physical and process-history of the waste package is not known, then it is impossible to state even what the waste-form will be. The discussion of release of radioactivity from containers and from the site is pure conjecture. Groundwater travel time and discharge rate cannot be assessed unless the starting point on what the waste and waste package are known. It is simply not credible for NRC Staff to do this Draft SEIS, or to ask the public to comment “conjecture.”

NIRS urges NRC to withdraw this document. Licensing authority to allow an industry to produce deadly waste carries with it licensing responsibility to do that job right. This SEIS is not right. Please pull it.

Nuclear Information and Resource Service here incorporates the comments of the Armargosa Conservancy on the SEIS, delivered at the NRC public meeting in Armargosa NV on September 17, 2015.

Respectfully Submitted,

_____/s/_____

Mary Olson

Nuclear Information and Resource Service