

May 18, 2004

The Honorable James M. Inhofe, Chairman
Committee on Environment and Public Works
United States Senate
Washington, D.C. 20510

Dear Mr. Chairman:

This letter responds to your request of May 18, 2004, for the U.S. Nuclear Regulatory Commission's (NRC's) views on waste-incident-to-reprocessing (WIR). Specifically, you requested NRC's thoughts on: 1) the U.S. Department of Energy's (DOE's) plan to grout in place the remaining residues left in the tanks at the Savannah River Site (SRS), the Hanford site, and the Idaho National Engineering and Environmental Laboratory (INEEL); and 2) the risks to human health and the environment by following DOE's plan or the Natural Resources Defense Council's (NRDC's) plan. The concept underlying WIR is that wastes can be managed based on their risk to human health and the environment, rather than the origin of the wastes. For wastes that originate in reprocessing of nuclear fuel, such as the tank residuals at the DOE sites, some are highly radioactive and need to be treated and disposed of as high-level radioactive waste. Others do not pose the same risk to human health and the environment, and do not need to be disposed of as high-level waste in order to manage the risks that they pose.

At the outset, it must be understood that the NRC does not have regulatory authority or jurisdiction over SRS, Hanford, or INEEL. In the past, DOE has requested NRC review of some of its WIR determinations and supporting analysis. The NRC entered into reimbursable agreements to perform these reviews, which were provided as advice and did not constitute regulatory approval. NRC performed comprehensive and independent WIR reviews for Hanford in 1997, SRS in 2000, and INEEL in 2002 and 2003. These reviews involved both waste removed from tanks, and waste residuals remaining in the tanks for grouting and closure. NRC assessed whether DOE's determinations had sound technical assumptions, analysis, and conclusions with regard to specific WIR criteria. These criteria are: 1) the waste has been processed to remove key radionuclides to the maximum extent that is technically and economically practical, and 2) the waste is to be managed so that safety requirements comparable to the performance objectives in NRC's regulation 10 CFR Part 61 (Licensing Requirements for Land Disposal of Radioactive Waste), Subpart C, are satisfied. In all cases, the NRC staff found that DOE's proposed methodology and conclusions met the appropriate WIR criteria and therefore met the performance objectives and dose limits that would apply to near-surface low-level waste disposal and would protect public health and safety. It should be noted that the Commission did not review all of DOE's actions with regard to WIR at those sites, and that the NRC conclusions applied only to those actions that the NRC reviewed. It should also be noted that the Commission in its "Decommissioning Criteria for the West Valley Demonstration Project (M-32) at the West Valley Site; Final Policy Statement" (67 FR 5003, February 1, 2002), established WIR criteria for that site identical to those used in our reviews of the three DOE sites.

It is our understanding that some opponents of DOE's proposed plans believe that the tanks and the waste residuals should be disposed of as high-level waste in a geologic repository. While either approach could potentially be implemented within NRC regulatory requirements, we note that removal of the tanks, packaging of the tanks and residuals for transport and disposal, and disposal of the waste at a geologic repository, if feasible, would incur significant additional worker exposures and transportation exposures at very large financial costs. Whereas, if DOE's proposed plans meet appropriate criteria, such as those used in NRC's previous reviews, then the NRC believes that public health and safety can be maintained while avoiding unnecessary additional exposures and risks associated with removal and transport of the waste and unnecessary additional expenditures of Federal funds.

I hope this letter satisfactorily addresses your questions.

Sincerely,

/RA/

Nils J. Diaz

cc: Senator James M. Jeffords