

STATE OF WASHINGTON DEPARTMENT OF HEALTH

OFFICE OF RADIATION PROTECTION

111 Israel Road SE • PO Box 47827 • Olympia, Washington 98504-7827 TDD Relary Services: 1-800-833-6388

August 31, 2009

Robert Lewis U.S. Nuclear Regulatory Commission FSME/DMSSA TWFN, 8 E24 Washington, DC 20555-0001

Dear Mr. Lewis:

This letter is a follow-up to a recent telephone conversation between the Department of Health and the NRC regarding the disposal of transuranics at the US Ecology low-level radioactive waste disposal facility located near Richland, Washington.

As you know, Russell Jim of the Confederated Tribes and Bands of the Yakama Nation had contacted Chairman Dale Klein of the U.S. Nuclear Regulatory Commission by letter dated July 16, 2008, regarding Trustee Responsibilities and the disposal of transuranics. The NRC responded to Mr. Jim in a letter dated December 4, 2008, referring him to the state of Washington, Department of Health. On August 6, 2009, the Department met with representatives from the Yakamas as well as the Confederated Tribes of the Umatilla Indians. During this meeting, the Yakamas and the Umatillas expressed concern with the possible disposal of transuranics in excess of 100 nCi/gram prior to 1980.

The Yakamas also outlined their issues in a letter to the Director of the Washington Department of Ecology, shortly before the August 6 meeting. The issues are:

- 1. The US Ecology disposal facility has one of the largest amounts of buried transuranic wastes in the United States. It has more than 40 percent of the total buried TRU wastes on the Hanford Site and contains as much as 220 pounds of plutonium.
- 2. The US Ecology disposal facility appears to contain about 95 percent of the total amount of uranium disposed in soil at the Hanford Site. According to a 2006 study by Nuvotec and Pacific Northwest National Laboratory, approximately 453,000 pounds of uranium had been discharged to soil by U.S. Department of Energy's Hanford operations. By comparison, approximately 9.3 million pounds of uranium had been disposed in the US Ecology disposal facility.
- 3. The Yakamas oppose Washington Department of Health's decision to not remove transuranic wastes and to cap the US Ecology disposal facility upon closure. In their opinion, it sets a bad precedent for the cleanup of large amounts of long-lived radioactive wastes at the Hanford Site. Moreover, they believe there is a need for a comprehensive

cleanup of buried transuranic and uranium wastes at the Hanford Site, including the US Ecology disposal facility.

From our August 6 discussions with the Tribes, they are concerned with:

- 1. The possibility of disposed transuranics at the US Ecology disposal facility in concentrations greater than 100 nCi/gram.
- 2. The incomplete characterization of waste in the early trenches.
- 3. The choice of an evapotranspiration (ET) cover because they have heard that the US EPA has determined that ET covers are failing.

The Tribes feel that if transuranics were disposed in concentrations greater than 100 nCi/gm, those wastes should be exhumed and disposed in a geological repository. Additionally, trench covers scheduled to be placed at the facility next summer should be postponed until the waste in the early trenches is fully characterized (including the possibility of exhumation).

The Department of Health is requesting technical assistance from the NRC to determine the following:

- 1. Did waste licensed by the NRC for disposal at the US Ecology disposal facility during the period 1965 to 1980 meet the four performance objectives of 10 CFR 61 (and WAC 246-250), even though it may have contained transurances in excess of 100 nCi/gram?
- 2. What is the potential radiological risk to worker health and safety if waste is exhumed? Exhumation of waste would encompass seven trenches which contain approximately 1,267,000 cubic feet of waste. These trenches are pre-Part 61.

Please feel free to contact me at 360.236.3210 if you have any questions.

Sincerely,

Gary Robertson, Director Office of Radiation Protection

cc: Larry Camper, NRC Richard Turtil, NRC Mark Shaffer, NRC