

5.0 Areas of Controversy

There are areas relevant to alternatives considered in this EIS, where viewpoints may differ among members of the public, technical experts, the State of Idaho, or DOE. These controversies, described below, *were* not resolved in the course of preparing this EIS and *may not be resolved before* issuing a Record of Decision.

5.1 Mixed Low-level/ Low-level Waste Disposal Locations

At the time of publication of the Draft EIS, DOE had not yet specified disposal sites for mixed low-level waste and low-level waste in a Record of Decision that was being developed for the Waste Management Programmatic Environmental Impact Statement (DOE/EIS-0200). On February 25, 2000 (65 FR 10061), DOE issued its Record of Decision to establish regional mixed low-level waste and low-level waste disposal at Hanford and the Nevada Test Site. In addition, DOE decided to continue, to the extent practicable, to dispose of low-level waste onsite and acknowledges the potential use of commercial mixed low-level and low-level waste disposal facilities.

Onsite disposal of mixed low-level waste or low-level waste generated from treatment of mixed transuranic waste/SBW and/or calcine at the INEEL is an area of controversy, as discussed in the Foreword to this EIS prepared by the State of Idaho.

5.2 Repository Capacity - Metric Tons of Heavy Metal

Space in the proposed spent nuclear fuel/HLW repository is allocated by MTHM, and DOE has allocated 4,667 MTHM for its HLW. Under DOE's current method of calculating the amount of MTHM in a canister of HLW, however, half of the DOE HLW inventory would not be accepted for disposal in the proposed repository and

would have to remain in storage. DOE has not identified the order in which sites that currently manage DOE-owned HLW would send canisters to the repository.

As described in Section 6.3.2.4 of the EIS, there are other methods for calculating MTHM equivalency that would result in a calculated quantity of MTHM that would be within the current allocation. The State of Idaho has urged DOE not to use the current method for calculating MTHM because, in the State's view, the current method overestimates the MTHM in DOE HLW. Instead, the State advocates that DOE use one of two other approaches to calculating MTHM, either one of which, in the State's view, better reflects the relative risk and actual concentrations of radionuclides in DOE HLW. Under either of the two approaches advocated by the State, DOE's HLW would be within the current allocation for the proposed repository.

DOE discusses the various methods for calculating MTHM equivalency in the *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* (DOE/EIS-0250).

5.3 Differences in Flood Studies

DOE and RCRA facility siting requirements usually restrict construction of waste management facilities within a floodplain. Two studies were completed to evaluate potential flood hazards at INTEC: one by the U.S. Geologic Survey and the other by the U.S. Bureau of Reclamation. These analyses showed differing results, *both of which were included in the Draft EIS for public review and comment. Since publication of the Draft EIS, DOE has submitted a floodplain determination to the State of Idaho for RCRA permitting purposes based on the flood study by Koslow and Van Haften. DOE will complete further studies in coordination with the U.S. Geological Survey and the U.S. Bureau of Reclamation to refine the projected 100-year and 500-year flood elevations and to make a final floodplain determination. DOE will consider the results of these studies in compliance*

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with its floodplain environmental review requirements (10 CFR Part 1022), and in compliance with the State of Idaho RCRA regulations, as appropriate.

6.0 Conclusions of Analysis

6.1 Overview

Implementing the alternatives considered in this EIS could result in impacts to public health and the environment from processing HLW and disposition of associated facilities at INTEC. The purpose of analyzing these potential impacts is to give decision-makers and the public information they can use to understand and compare the environmental consequences of alternative courses of action.

For this EIS, DOE assessed the environmental impacts for 14 areas of interest for the waste processing alternatives and the facility disposition alternatives. *A comparison of impacts for the five key areas of interest discussed in this section is provided in Table S-2 following Section 6.5 of this Summary.* In 9 of the 14 areas, the results indicate little or no impacts as follows:

Land Use – Estimated land use would be consistent with the *INEEL Comprehensive Facility and Land Use Plan*. The maximum additional amount of land that would be converted to industrial use at the INEEL *under the alternatives analyzed in this EIS* would be 22 acres. At Hanford, *approximately 50* additional acres could be converted to industrial use in the 200 East Area. At both sites, this additional disturbance would be less than 1 percent of the area currently used for industrial purposes.

Socioeconomics – DOE anticipates that total INEEL employment will continue to decline. Future changes in employment as a result of activities described in this EIS would be within the normal range of INEEL workforce changes, and would represent a continuation of current site employment that might otherwise be lower. Other activities at INTEC not related to alternatives discussed in this EIS would take place

intermittently and would also be within normal workforce fluctuations.

Cultural Resources – The majority of INEEL activities resulting from the Proposed Action would occur in previously disturbed areas. *Standard* measures are in place to help prevent impacts to cultural resources that may be discovered during site development.

Aesthetic and Scenic Resources – DOE would undertake construction activities associated with any waste processing alternative or treatment option in a manner compatible with the general INEEL setting and with the Bureau of Land Management Visual Resource Management class designation for the area. Operational impacts for any of the alternatives and options are estimated to be small.

Geology and Soils – Geologic materials (soils and gravel) required for any of the waste processing or facility disposition alternatives would be obtained from existing onsite sources. DOE estimates that impacts to geologic resources would be small.

Water Resources (Usage) – Total INEEL water consumption *from activities resulting from the bounding alternative (Hot Isostatic Pressed Waste Option) could increase by as much as 93 million gallons per year during operations.* This usage represents an increase of 20 percent of water withdrawn by the INEEL from the Snake River Plain Aquifer relative to 1996 usage. *INEEL water use would be well below the consumptive use water rights of 11.4 billion gallons per year.*

Ecological Resources – DOE estimates that impacts to ecological resources for the waste processing and facility disposition alternatives would be small and there would be no impact to threatened or endangered species or critical habitats. Most activities would take place in heavily developed industrial areas that have marginal value as wildlife habitat.

Environmental Justice – Impacts from proposed waste processing alternatives and treatment options, under all alternatives, would not result in high and adverse impacts on the population as a whole. Further, DOE did not identify means