

**U. S. DEPARTMENT OF ENERGY
FINDING OF NO SIGNIFICANT IMPACT FOR THE
CLOSURE OF THE WASTE CALCINING FACILITY
AT THE IDAHO NATIONAL ENGINEERING LABORATORY**

Agency: U. S. Department of Energy (DOE)

Action: Finding of No Significant Impact

SUMMARY: The DOE-Idaho Operations Office has prepared an environmental assessment (EA) to analyze the environmental impacts of closing the Waste Calcining Facility (WCF) at the Idaho National Engineering Laboratory (INEL). The purpose of the action is to reduce the risk of radioactive exposure and release of radioactive and hazardous constituents and eliminate the need for extensive long-term surveillance and maintenance. DOE has determined that the closure is needed to reduce the risks to human health and the environment and to comply with Resource Conservation and Recovery Act requirements.

The WCF closure project is described in the DOE Programmatic Spent Nuclear Fuel Management and Idaho National Engineering Laboratory Environmental Restoration and Waste Management Programs Final Environmental Impact Statement (FEIS). DOE determined in the FEIS Record of Decision (ROD) that certain actions will be implemented and other actions deferred. The ROD states, for the WCF that "Implementation decisions will be made in the future pending further project definition, funding priorities and any further review under the Comprehensive Environmental Response Compensation and Liability Act, or the National Environmental Policy Act." In accordance with 40 CFR Part 1502.2, the WCF EA tiers from the FEIS. This EA was prepared to provide the further National Environmental Policy Act (NEPA) review identified in the ROD and to address the site specific environmental impacts of the WCF Closure Project.

The EA examined the potential environmental impacts of the proposed action and evaluated reasonable alternatives, including the no action alternative in accordance with the Council on Environmental Quality Regulations (40 CFR Parts 1500-1508). Based on the analysis in the EA, the impacts of the action will not have a significant effect on the human environment within the meaning of NEPA and 40 CFR Parts 1508.18 and 1508.27.

Selected Action: The selected action includes filling the below-grade vessels and operating compartments of the WCF with grout to prevent future subsidence and maintain the integrity of the closure cap, disconnecting and/or blocking all lines in or out of the WCF to prevent moisture from entering the building, dismantling the superstructure and covering the encased process equipment and rubble with a concrete cap to minimize future infiltration of water. The action is described in detail in Section 2.1 of the EA.

Schedule: Closure activities will begin in Fiscal Year 1996 and continue for three years. The Comprehensive Facility and Land Use Plan states that the INEL boundaries are expected to remain unchanged for up to 100 years. Planned post-closure activities such as monitoring and inspections will continue for 30 years, and could be shortened or lengthened by the Director of the Idaho Department of Health and Welfare.

SUMMARY OF IMPACTS: The following is a summary of the impacts evaluated in the EA at the referenced pages and presented in relation to the significance criteria described in 40 CFR 1508.27.

1) Beneficial and adverse impacts [40 CFR 1508.27 (b)(1)]:

- Portions of the WCF are interim status hazardous waste units. Analysis indicates that it is impractical to remove all of the waste residues and contaminated equipment and associated structures from the WCF. Therefore, the WCF will be closed in accordance with the closure and post closure requirements that apply to hazardous waste landfills (40 CFR 265.197 and 265.310) (Section 2.1.1, *Closure Activities*, p. 7).
- There are no significant adverse impacts associated with:
 - ▶ Closure or post-closure activities (Section 4.1, *Alternative 1 (Proposed): Closure-In-Place*, p. 17);
 - ▶ Radioactive emissions and radiation exposure (Section 4.1.1, *Air Emissions*, p. 17);
 - ▶ Generation of radioactive and nonradioactive wastes (Section 4.1.9, *Waste Management*, p. 23).

2) Public health and safety [40 CFR 1508.27 (b)(2)]:

- Public exposure to radiation will be below levels known to cause adverse health effects (Section 4.1.8, *Health Effects*, p. 22).
- The highest risk of a cancer fatality in the public resulting from activities associated with the selected action is less than the National Oil and Hazardous Substance Pollution Contingency Plan target risk range of 1×10^{-4} to 1×10^{-6} (Section 4.1.8, *Health Effects*, p. 22).
- The annual dose to individual workers is not expected to exceed 1.5 rem/year, a Lockheed Martin Idaho Technologies Company (LMITCO) administrative limit (Section 4.1.8, *Health Effects*, p. 22).

3) Unique characteristics of the geographical area [40 CFR 1508.27 (b)(3)]:

- No unique characteristics of the geographical area will be impacted by the selected action (Section 4.1.2, *Geology*, p. 19; Section 4.1.3, *Surface Water*, p. 19; Section 4.1.4, *Groundwater*, p. 19; Section 4.1.5, *Biological Resources*, p. 21; Section 4.1.6, *Cultural Resources*, p. 21; and Section 4.1.7, *Land Use and Visual Resources*, p. 21).

4) Degree to which effects on the quality of the human environment are likely to become highly controversial [40 CFR 1508.27 (b)(4)]:

- The project will result in no significant adverse effects on the quality of the human environment based on accepted methods of evaluation.

5) Uncertain or unknown risks to the human environment [40 CFR 1508.27 (b)(5)]:

- No unique, uncertain, or unknown risks or effects to the human environment will result from the operational or cumulative impacts associated with the project.

6) *Precedent for future actions* [40 CFR 1508.27 (b)(6)]:

- The In-Place Closure of the WCF, while a unique approach, does not set a precedent for future actions or automatically trigger closure of other facilities in a like manner. In addition, other actions can proceed without the closure of the WCF. Therefore, the closure of the WCF is an "unconnected" action that does not foreclose alternatives for future INEL facility closures.

7) *Cumulatively significant impacts* [40 CFR 1508.27 (b)(7)]:

- There are no significant cumulative impacts associated with the project (Section 4.1.10, *Cumulative Impacts*, p. 23).

8) *Effect on cultural or historical resources* [40 CFR 1508.27 (b)(8)]:

- No cultural resources are anticipated to be impacted (p. 21). The WCF is potentially eligible for listing on the National Register of Historic Places. However, DOE will complete consultation as required by Section 106 of the National Historic Preservation Act before commencement of any activities associated with the selected action (Section 4.1.6, *Cultural Resources*, p. 21 and Section 6, *Coordination and Consultation*, p. 37).

9) *Effects on threatened or endangered species or critical habitat* [40 CFR 1508.27 (b)(9)]:

- No threatened or endangered species or critical habitat will be affected by the action (Section 4.1.5, *Biological Resources*, p. 21 and Section 6, *Coordination and Consultation*, p. 37).

10) *Violation of Federal, State, or Local law* [40 CFR 1508.27 (b)(10)]:


- The project will not violate any federal, state, or local law (Section 5, *Permit and Regulatory Requirements*, p. 35).

DETERMINATION: Based on analysis presented in the attached EA, I have determined that this project does not constitute a major Federal action significantly affecting the quality of the human environment. Therefore, preparation of an environmental impact statement is not required and I am issuing this finding of no significant impact.

INFORMATION: Copies of the EA and FEIS are available from: Brad Bugger, Office of Communications, MS-1214, Idaho Operations Office, U. S. Department of Energy, 850 Energy Drive, Idaho Falls, Idaho, 83403-3189, or by calling (208) 526-0833 or the toll-free INEL citizen inquiry line (800) 708-2680.

For further information on DOE's NEPA process contact: Roger Twitchell, NEPA Compliance Officer, MS-1216, U. S. Department of Energy, 850 Energy Drive, Idaho Falls, Idaho, 83403-3189, (208) 526-0776.

Issued at Idaho Falls, Idaho on this 15th day of July, 1996.



J. M. Wilcynski
Manager, Idaho Operations Office