

**FINDING OF NO SIGNIFICANT IMPACT  
FOR CONSTRUCTION OF MIXED WASTE STORAGE FACILITIES,  
BUILDINGS 7668 AND 7669  
OAK RIDGE NATIONAL LABORATORY  
OAK RIDGE, TENNESSEE**

**AGENCY:** Department of Energy

**ACTION:** Finding of No Significant Impact

**SUMMARY:** The Department of Energy has prepared an environmental assessment, DOE/EA-0820, to assess the potential environmental impacts of constructing and operating two mixed waste Resource Conservation and Recovery Act (RCRA) storage facilities. The new facilities would be located inside and immediately west of the security-fenced area of the Oak Ridge National Laboratory Hazardous Waste Management Area in Melton Valley, Tennessee. Based on the analyses in the environmental assessment, the Department has determined that the proposed action does not constitute a major Federal action significantly affecting the quality of the human environment within the meaning of the National Environmental Policy Act of 1969. Therefore, the preparation of an environmental impact statement is not required, and the Department is issuing this finding of no significant impact.

**COPIES OF THE ENVIRONMENTAL ASSESSMENT ARE AVAILABLE FROM:**

Information Resource Center  
U.S. Department of Energy  
105 Broadway  
Oak Ridge, TN 37830  
Phone: (615) 481-0695

**FOR FURTHER INFORMATION ON THE DEPARTMENT'S NATIONAL ENVIRONMENTAL POLICY ACT  
PROCESS, CONTACT:**

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Office of NEPA Oversight, EH-25  
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**PROPOSED ACTION:** The proposed action is to construct and operate two mixed (both radioactive and hazardous) waste storage facilities (Buildings 7668 and 7669) in accordance with RCRA requirements. The new facilities would be sized to hold a total of 750 55-gal drums, or 41,250 gal of mixed waste. Building 7668 would store about 500 drums, and Building 7669 would store about 250 drums. Drums would be stored four drums to a 4-foot by 4-foot pallet stacked two pallets high. One air exchange per hour would be provided in each building, and the ventilation exhaust would pass through a high-efficiency particulate air filtration system. Operation of the facilities would involve off-loading of mixed waste drums from a transport vehicle and movement of the drums to a storage location by forklift. Operation would also include routine inspections, monitoring procedures, and building maintenance.

**ENVIRONMENTAL IMPACTS:** Site preparation and construction activities would be conducted within a previously developed and disturbed area and would not affect environmentally sensitive resources, such as archeological or historic sites, habitats of any threatened or endangered species, floodplains, or wetlands. Existing surface water drainage patterns would be minimally altered as a result of the construction activities, since no surface streams are in the immediate area.

Pollutant emissions during construction would be temporary and would consist primarily of particulates released during earth-moving activities. Appropriate dust suppression techniques would be utilized. Spill prevention, control, containment, and cleanup measures would be used to control the effects of any accidental spills of hydraulic fluid, lubricating oil, etc., during construction.

Occupational exposure from handling mixed waste in the new facilities is expected to be similar to that of existing operations. Waste would be stored in containers approved for mixed and hazardous waste and would be limited to a maximum dose rate of less than 10 mrem/h on the outside surface of the waste container. The occupational exposures for the Hazardous Waste Management Area facilities are monitored using personal thermoluminescence dosimeters, and

Laboratory policy limits exposure to no more than 2 rem/year for each employee. In 1990, the average occupational dose for waste workers was 22 mrem; the maximum occupational dose received by an individual worker was 149 mrem; and the minimum was 0 mrem. Buildings 7668 and 7669 would be operated under RCRA permits. The permits require facilities to comply with 40 CFR Part 265 (or applicable state regulations), which specifies minimum standards for safe operations, including security, personnel training, and alarm systems.

The hazards identified with operating the proposed 7668 and 7669 facilities are the same as those encountered with the Long-Term Hazardous Waste Storage Facility, Building 7654 (Reference 8 in the environmental assessment), since the same drummed co-contaminated wastes are being stored in Building 7654 as would be stored in Buildings 7668 and 7669. Building 7654 has undergone a hazard screening, resulting in a determination that radiation dose consequences of an accident at 100 meters would be much less than 10 rem. This would result in a cancer risk of less than  $5 \times 10^{-3}$  lifetime cancer risk to on-site personnel beyond 100 meters downwind and much less than  $5 \times 10^{-5}$  to off-site members of the public for one-time exposure to accidental releases from Building 7654.

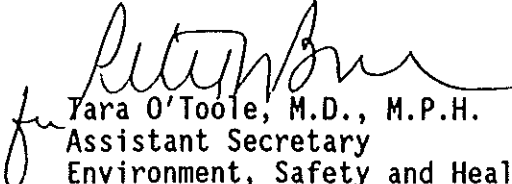
Based on a typical inventory, chemical hazards were also investigated. The chemicals expected to be stored in Buildings 7668 and 7669 are considered toxic chemicals; no carcinogens would be stored in these facilities. Exposure of personnel to toxic contaminants from the proposed storage facilities is not anticipated. Therefore, no adverse effect on workers, or the public, is expected from the hazardous components of the mixed waste to be stored under the proposed action.

**ALTERNATIVES CONSIDERED:** Alternatives considered in the review of the proposed action were (1) no action and (2) alternative sites at the Laboratory. Taking no action would result in the storage of mixed waste in facilities without RCRA permits resulting in noncompliance with RCRA requirements. Existing RCRA-permitted storage facilities are near capacity and mixed waste generation cannot be curtailed due to the mandatory

environmental restoration activity at the Laboratory. Alternative sites are less disturbed than the proposed site and are not within or adjacent to the Hazardous Waste Management Area (designated as a mixed waste area in the Laboratory's Long-Range Plan and Site Development Plan).

**DETERMINATION:** Based on the analyses in the environmental assessment, the Department has determined that the construction and operation of two RCRA-permitted mixed waste storage facilities does not constitute a major Federal action that would significantly affect the quality of the human environment within the meaning of the National Environmental Policy Act. Therefore, the preparation of an environmental impact statement for the proposed action is not required, and the Department is issuing this finding of no significant impact.

Issued at Washington, D.C., this 16<sup>th</sup> day of August, 1994.

  
Tara O'Toole, M.D., M.P.H.  
Assistant Secretary  
Environment, Safety and Health