



U.S. Department of Energy

Categorical Exclusion Determination Form

Proposed Action Title: Demolition of Excess Structures at Freels Bend in Oak Ridge, Tennessee (4647CXD)

Program or Field Office: Office of Science - ORNL

Location(s) (City/County/State): Oak Ridge, Tennessee

Proposed Action Description:

The U.S. Department of Energy (DOE) proposes to demolish excess-to-mission structures formerly associated with the Comparative Animal Research Laboratory operated by Oak Ridge Associated Universities on behalf of the Atomic Energy Commission/Energy Research & Development Administration beginning in the 1950's and continuing through the 1970's. Structure XF1304 (Silo E) is a 1964 - era silo constructed of concrete-tile and is associated with Oak Ridge National Laboratory (ORNL) Structure XF1303 - (Barn E/Deer Checking Station), a pair of shed barns which remain in use as a base of operations for Tennessee Wildlife Resources Agency activities within the DOE Oak Ridge Reservation. Structure XG1404 Variable Dose Irradiation Facility was constructed in 1968 and provided indoor space for Research and Development Activities involving radiation dose assessment of livestock following exposure to radiation fields. The VDIF was constructed of a combination of concrete block and steel-reinforced poured concrete and is located partially underground with and is approximately 3500 square feet in size. Structure XG1410 - (Shielding Wall Donkey Arena) was built in 1958 and consists of a circular concrete pad of approximately 30 feet in diameter, partially surrounded by a concrete wall (approximately 12 feet tall) and formed in the shape of a semi-circle and was used as a location for exposing livestock to radiation fields. The purpose of the wall was to provide shielding to prevent unintentional radiation exposures to the surrounding natural area. XG1415 - (Arena Observation Shield) was also built in 1958 and consisted of a concrete slab wall with a thick glass viewing plate, set uphill of the Arena for the purpose of shielding observers from radiation fields. Structure XG1416 - (Generator House) was constructed in 1968, located adjacent to Structure XG1404, and consists of a small concrete block building used to shelter the standby electrical power generator dedicated to sustaining the VDIF in the event of power service failure. All the structures are located on or near the Freels Bend Area within the DOE Oak Ridge Reservation in Oak Ridge, Tennessee, and DOE proposes to demolish these excess structures to eliminate surveillance and maintenance costs associated with the aging facilities.

The proposed action would include (1) removal of vegetation and minor excavation of soil to expose buried structures (2) removing and positioning materials and equipment from the buildings; (3) removing and positioning all known hazardous materials; (4) disconnecting utility services; (5) demolishing the buildings by conventional methods (i.e., wrecking equipment); (6) demolition of concrete slab or foundation at some locations; and (7) removing debris from the site. In the event that regulated materials are discovered during the course of demolition, or if it proves infeasible to remove all regulated material prior to demolition, the proposed action would include the proper segregation and disposal of any such materials in accordance with existing ORNL procedures prior to disposal of the remaining debris as sanitary/industrial waste.

The Tennessee Department of Environment and Conservation would be provided with advance notification (at least 10 days) of the building demolition, in accordance with Tennessee Rule 1200-03-11-.02: Asbestos.

Appropriate storm water pollution controls would be installed and inspected prior to beginning demolition activities. Water spray would be utilized to control airborne dust emissions, and runoff would be monitored and regulated so as to prevent uncontrolled non-storm water discharges to storm drains and/or waters of the state.

The proposed action would generate a variety of demolition waste which may include but is not limited to (1) asbestos containing materials (ACM) including insulation, floor tile, mastic and transite-ACM wastes would be disposed of under the special waste provisions of the Oak Ridge Reservation (ORR) Centralized Landfill; (2) limited quantities of universal wastes and hazardous wastes may remain in place until demolition, and the wastes would be segregated and recycled or disposed, as appropriate, through existing ORNL waste management systems; (3) any radiological contaminated materials which could not be accessed prior to demolition would be removed and managed in accordance with existing procedures; (4) materials with painted surfaces would be characterized for potential lead and/or PCB content prior to demolition to confirm that resulting waste streams would meet waste acceptance criteria for the receiving facility; (5) General demolition wastes including but not limited to concrete, metal, wood, roofing material, glass, and nominal quantities of excavated soil; and (6) all nonhazardous and nonradioactive waste material would be disposed at an approved sanitary landfill site. The disposal of hazardous waste would include characterizing, packaging, and certifying the waste to ensure that it meets the acceptance requirements of the receiving organization. The facility would undergo characterization, and a waste management plan would be developed prior to demolition activities. Demolition plans for each location will incorporate appropriate best management practices wherever the slab or foundations are to be removed, including but not limited to soil characterization, additional storm water controls, and waste segregation and containment. No demolition or excavation waste will be generated until an appropriate disposal path has been identified.

This action falls under Stipulation VII. A.1.m. (Non-Contributing Properties) within the Programmatic Agreement among the Department of Energy Oak Ridge Operations Office, The Tennessee State Historic Preservation Office and the Advisory Council on Historic Preservation Concerning the Management of Historical and Cultural Properties at the ORNL.

In consultation with the Tennessee State Historic Preservation Office of the Tennessee Historic Commission, DOE has determined that structures XF1304, XG1404, XG1410, XG1415, and XG1416 are not individually eligible for listing on the National Register of historic places and are not contributing structures to a Registry-eligible Historic District. No additional National Historic Preservation Act Section 106 consultation is required.

¹*National Historic Preservation Act Historic Preservation Plan, Oak Ridge National Laboratory, Oak Ridge, Tennessee, ORNL/TM-2004/62, April 2004.*

Categorical Exclusion(s) Applied:

B1.23 - Demolition and disposal of buildings

B6.1 - Cleanup actions

For the complete DOE National Environmental Policy Act regulations regarding categorical exclusions, including the full text of each categorical exclusion, see Subpart D of [10 CFR Part 1021](#).

Regulatory Requirements in 10 CFR 1021.410(b): (See full text in regulation)

The proposal fits within a class of actions that is listed in Appendix A or B to 10 CFR Part 1021, Subpart D.

To fit within the classes of actions listed in 10 CFR Part 1021, Subpart D, Appendix B, a proposal must be one that would not: (1) threaten a violation of applicable statutory, regulatory, or permit requirements for environment, safety, and health, or similar requirements of DOE or Executive Orders; (2) require siting and construction or major expansion of waste storage, disposal, recovery, or treatment facilities (including incinerators), but the proposal may include categorically excluded waste storage, disposal, recovery, or treatment actions or facilities; (3) disturb hazardous substances, pollutants, contaminants, or CERCLA-excluded petroleum and natural gas products that preexist in the environment such that there would be uncontrolled or unpermitted releases; (4) have the potential to cause significant impacts on environmentally sensitive resources, including, but not limited to, those listed in paragraph B(4) of 10 CFR Part 1021, Subpart D, Appendix B; (5) involve genetically engineered organisms, synthetic biology, governmentally designated noxious weeds, or invasive species, unless the proposed activity would be contained or confined in a manner designed and operated to prevent unauthorized release into the environment and conducted in accordance with applicable requirements, such as those listed in paragraph B(5) of 10 CFR Part 1021, Subpart D, Appendix B.

There are no extraordinary circumstances related to the proposal that may affect the significance of the environmental effects of the proposal.

The proposal has not been segmented to meet the definition of a categorical exclusion. This proposal is not connected to other actions with potentially significant impacts (40 CFR 1508.25(a)(1)), is not related to other actions with individually insignificant but cumulatively significant impacts (40 CFR 1508.27(b)(7)) and is not precluded by 40 CFR 1506.1 or 10 CFR 1021.211 concerning limitations on actions during preparation of an environmental impact statement.

The above description accurately describes the proposed action, which reflects the requirements of the CX cited above. Therefore, I recommend that the proposed action be categorically excluded from further NEPA review and documentation.

Program Point of Contact: Chad Huffman
Chad Huffman, DOE-SC-OSO
Director, Operations Division

7/12/2022
Date Determined

Based on my review of the proposed action, as NEPA Compliance Officer (as authorized under DOE Policy 451.1B), I have determined that the proposed action fits within the specified class(es) of action, the other regulatory requirements set forth above are met, and the proposed action is hereby categorically excluded from further NEPA review.

NEPA Compliance Officer: _____
Peter Siebach, DOE-SC-41.1
DOE-SC NEPA Compliance Officer

Date Determined