



U.S. Department of Energy Categorical Exclusion Determination Form

Proposed Action Title: Sludge Test Facility at site 7658 [CX-TWPC-16-0001]

Program or Field Office: Environmental Management - Oak Ridge

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

Proposed Action Description:

The proposed action is to construct and operate a sludge test facility at site 7658 to conduct testing activities for sludge mobilization, mixing, and removal from the Melton Valley Storage Tanks (MVST). The testing is needed to develop appropriate, compliant treatment to a final waste form that will meet the Nevada National Security Site (NNSS) Waste Acceptance Criteria (WAC). This testing is needed for the mobilization, removal, and treatment of the sludge regardless of where the treatment occurs. The sludge test facility would be constructed at ORNL site 7658, which is a large gravel area located at the intersection of Melton Valley Drive and Melton Valley Access Road. The site is approximately 3 acres with dimensions of 500 feet long and 260 feet wide. The Sludge Test Area lab will be roughly 60' X 100', with an enclosed structure on the slab. Space for the mobile laboratory and other additional equipment to include parking and administrative space is anticipated. The area would be cleared and graded, as appropriate, to allow for construction of a full-scale tank to allow for testing of various methods to extract the sludge from the MVSTs. Surrogate non-hazardous and non-radioactive material [e.g., kaolin clay, salts (CaSO₄), silica, carbide) would be placed into the tank and various methods would be used to determine the best method to extract the sludge located in the MVSTs. Additional equipment and various sized tanks would be installed to test various treatment mixtures and methods of treatment. Soil sampling may be conducted to characterize the soil prior to disturbance, if needed.

Potential Impacts would include the need for new drainage in order to drain surface water from the facility. The contractor would be expected to comply with the Oak Ridge National Laboratory (ORNL) National Pollutant Discharge Elimination System Permit, as applicable. The site is identified as a Solid Waste Management Unit (SWMU) under the Oak Ridge Reservation Hazardous Waste Corrective Action Document TNHW-121 that will require further investigation. The site was previously used to bury general construction debris that was not rad-contaminated. Solid waste would be generated in the form of construction waste, personal, and office waste and would be cleared offsite at the ORNL landfill. Environmental elevated noise levels would be expected due to construction of the test facility. The entryway to the gravel lot from Melton Valley Drive would be expanded to allow for increased traffic and vehicles. This may result in the removal of some trees and vegetation which will require surveys to identify threatened or endangered species. Right of way and connections to roadways would be coordinated with ORNL.

Categorical Exclusion(s) Applied:

B3.6 - Small-scale research and development, laboratory operations, and pilot projects

B3.1 - Site characterization and environmental monitoring

B1.32 - Traffic flow adjustments

B1.33 - Stormwater runoff control

Choose an item.

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: Nathan Felosi, DOE-OREM



Date Determined: 12/29/15

Based on my review of the proposed action, as NEPA Compliance Officer (as authorized under DOE Order 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: James Elmore, DOE-ORO NEPA Compliance Officer



Date Determined: 12/30/15