



U.S. Department of Energy Categorical Exclusion Determination Form

Proposed Action Title: Office of Secure Transportation Multiple Actions (CX-ORR-13-009)

Program or Field Office: Oak Ridge Reservation

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

Proposed Action Description:

The Office of Secure Transportation (OST) is an organization within the Department of Energy's National Nuclear Security Administration (NNSA) that provides safe and secure transportation of items for the national security of the United States of America. The NNSA OST proposes the following actions: 1) install a new fire water protection supply piping system at the Secure Transportation Complex (STC) to the Vehicle Maintenance Facility (VMF) and conduct a radar survey of the concrete parking apron along the 8-in ductile iron pipe path to look for sink holes, 2) increase the concrete firing line at the OST from 2,250 ft² to 6,250 ft², 3) expand the training acreage of OST's User Permit by 600 acres, 4) install a security boundary fence at OST, and 5) create a new gravel parking lot area.

Fire Water Piping System

The OST is experiencing a loss of approximately 800 gals/day from the fire water loop protecting Building 9714, known as the OST Eastern Command's Vehicle Maintenance Facility (an approximate 40,000 ft² building). To date, efforts have been unsuccessful in locating the leak or leaks from the 30-year old pipeline; and because of the pipeline's age, OST proposes to abandon the system and install new fire water lines. The existing loop, which is still in service in spite of the leaks, is an 8-in ductile iron pipe. This line would remain in service until replacement lines are in place and commissioned. The facility is located at the intersection of the Oak Ridge Turnpike and Flannigan Loop Road. The proposed action would include two efforts: 1) trenching and installation of new fire water lines and 2) performing the necessary efforts to safely abandon the leaking 8-in ductile iron fire water loop including conducting a ground penetrating radar survey.

The primary activity would involve trenching. Soils in the area are uncontaminated and the soils would be retained on site for trench backfill. The disturbed area is less than 1 acre. Because the area is adjacent to improved areas, the action would not require installation of any support utilities. Depending on the assigned tie-in point by the City of Oak Ridge, it may be necessary to improve a bypass route to the office area located to the southwest of the STC compound. Should this be necessary, the route would be restored after completing the work. The trench crossing the road would, typically, be opened and closed in the same day. Straw bales would be used downstream of the scarred area to stop the transport of soil during rain events. A dedicated step-off pad or decontamination area would not be required; however, trenching equipment would be cleaned prior to leaving the site. Only well maintained equipment would be used for the trenching operations.

The new piping network would tie into the Oak Ridge water system, and new lines would incorporate backflow protection and be subject to chlorine decontamination. Once the old lines are abandoned, the connections to the 8-in ductile iron pipe would be cut and capped. All valve riser boxes remaining in place would be grouted, and any valves and line segments exposed during demolition would be removed to avoid any confusion that may be created by the abandoned system by leaving abandoned valves.

The second effort would be to conduct a ground penetrating radar survey. The survey would be performed because it is known that void-related roadway problems have often developed near water supply pipes or drainpipes and the survey would be conducted to look for sink holes or cavities beneath the pavement traversed by the leaking water line.

Ground penetrating radar would be used to survey the area in wide tracks across the paved areas above the leaking pipeline. The width of each area would be approximately 16 feet (if the pavement width allows); 8 feet on either side of the line once its location is established. The process may employ multiple antennas and frequencies depending on soil composition. The intent would be to identify the pipeline and get a complete picture of the subsurface at a variety of depths.

The area has been previously disturbed, and excavation permits would be obtained via appropriate administrative channels in place on the Oak Ridge Reservation (ORR) for post holes and trenching activities, including Tennessee One requirements. In addition, any disturbed areas would be seeded, if necessary, with native grasses. The area would not require any clearing or grubbing.

Concrete Firing Line

The OST proposes to increase the concrete firing line from 2,250 ft² to 6,250 ft². Increasing the firing line would improve Live Fire Ranges (LFR) #1 and #2 by capping the area forward of the 25-yd line with a continuous concrete pad and cleaning out the associated drainage system to support training, qualification, and maintenance efforts. Drainage would be addressed via natural ground assimilation through French drains and existing ditches containing culverts and riprap. The new firing line would be sloped, which would allow for proper drainage. The LFRs at Eastern Command were not designed with the current work force in mind. The original design was for approximately 25-30 agents and training/qualifying on the LFRs several times per year; however, the LFRs are used daily and a larger work force is being trained. Maintenance on LFRs #1 and #2 has progressed in the past few years; however, a permanent solution to ongoing maintenance problems has become necessary.

Currently, LFRs #1 and #2 have intermittent concrete pads at the 3-, 5-, 7-, 10-, 15-, and 25-yd lines, separated by a significant quantity of loose crushed stone. These concrete pads represent the firing lines from antiquated DOE Live Fire Qualification Courses. As of 2012, the DOE Live Fire Qualification Course is not restricted to firing from these concrete pads. It is now a dynamic course of fire that requires shooting while moving. This new course of fire makes the combination of intermittent concrete pads and crushed stone an unnecessary combination; therefore, the concrete pads would be removed and replaced with a continuous concrete pad.

The area has been previously disturbed, and excavation permits would be obtained via appropriate administrative channels in place on the ORR for post holes and trenching activities, including Tennessee One requirements. In addition, any disturbed areas would be seeded, if necessary, with native grasses.

Expansion of Training Acreage

The mission of the OST is to provide safe and secure ground transportation of nuclear weapons, nuclear weapon components, and special nuclear materials; provide safe and secure air transportation of nuclear weapon components; and conduct other missions supporting the national security of the United States. The STC currently consists of the Management and Administration Building, Building NA-1513, and the VMF, Building 9714. These buildings are located on approximately 58 acres adjacent to State Highway 58/Gallaher Road (9714 Flannigan Loop Road). The OST Training Facility (administration area, life fire/surface danger zone, and tactical training area) currently consists of the Training Administration Building, Building 9120; the Weapons Cleaning, Storage, and Warehouse, Building 9120-2; and the Physical Training and Intermediate Use of Force Building, Building 9120-4. These facilities are located on approximately 1,020 acres along Bear Creek Road.

The STC has proposed an increase of approximately 600 acres to the User Permit Agreement (UPT) to be utilized by the STC to meet the requirements for elevated SECON conditions, increase operational security, and to prevent further thefts. The entire area would be used for field-training exercises. A phased approach would be utilized by STC which would include a barrier plan and additional fencing of target areas and parking lots.

Security Boundary Fence

OST proposes to install a 3-ft barbed wire fence along the permitted boundary of the OST property and install access gates in the fencing. The property is located at the intersection of State Highway 58 and Blair/Flannigan Loop Road and is approximately 58 acres. The fence line is within the existing 58-acre boundary identified in the User Permit Agreement between ORO and OST. Installation of the fencing would improve the right-of-way adjacent to the OST property boundary, and installation of gates would allow access to existing easements.

The fence line is approximately 5,300-ft in length. Posts would be approximately 5½-ft long, and set to a depth of approximately 2 ft. No concrete or other enforcements would be used to anchor the fence. Several gates would be installed along the perimeter for inspection and easement access, and fencing would be appropriately marked.

Some clearing and grubbing would be required along the fence line, and some tree removal may be required in areas that have become overgrown in the past few years. Tree removal and site drainage contouring would be coordinated with the ORR Wildlife Management.

The area would not be disturbed except for installation of fencing. Excavation permits would be obtained via appropriate administrative channels in place on the ORR for post holes and trenching activities, including Tennessee One requirements. In addition, any disturbed areas would be seeded, if necessary, with native grasses.

Parking Lot Expansion

OST proposes to construct a gravel parking area adjacent to the VMF construction area to accommodate parking for additional construction personnel and for usage by the construction contractor as a staging laydown area for equipment. The area has been previously disturbed, and no clearing would be required other than minor grading to prepare the surface for crush and run gravel installation. Once the construction project has been completed, the gravel parking area would remain a parking area at OST for visitor parking.

The proposed action would be conducted in a previously disturbed area and would not adversely affect environmentally sensitive resources such as archeological or historical sites, endangered species, critical habitats, floodplains, and wetlands.

Categorical Exclusion(s) Applied:

B1.2 - Training exercises and simulations
B1.3 - Routine maintenance
B1.11 - Fencing
B1.15 - Support buildings

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: Justin W. Brown

Date Determined: 9/25/2013

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.

DOE ORO NEPA Compliance Officer: Gary S. Hartman

Date Determined: 9/25/2013