



U.S. Department of Energy
Portsmouth/Paducah Project Office

National Environmental Policy Act (NEPA) Environmental Evaluation Checklist

PPPO-F-450.1B, Rev. 3
June 2017

National Environmental Policy Act Review

Instructions:

- Submit one copy of the completed NEPA Checklist with supplemental information to the PPPO Project Coordinator.
- PPPO Project Coordinator will distribute to PPPO Program NEPA Coordinator and/or PPPO NEPA Compliance Officer (NCO) for approval.
- File the completed checklist with the project files, as appropriate.
- Completion of this checklist is not required for CERCLA actions. However, the Contractor's Project Coordinator is responsible for ensuring that a commensurate level of project detail is provided to the CERCLA Project Manager so that proper consideration and analysis of the work can be performed via the CERCLA process.

Activity title and project number (if any):

Switchyard, Transmission Tower, and Auxiliary Equipment Dismantlement and Disposition

Date:

April 13, 2020

Contractor Project Contact Name:

Cheryl Baker

Telephone Number:

(270) 441-6008

PPPO Project Manager:

William Wessel

Telephone Number:

(270) 217-5417

Forecast Activity start date:

May 27, 2020

Estimated cost:

\$30M to \$35M

Activity location:

 PORTS/PAD

 PORTS

 Other _____

 PAD

Activity description: This should be a brief but thorough description of the proposed activity. Be very specific in explaining the purpose and location (a developed/non-developed area, outside/inside/adjacent to an existing building number, etc.)

The U.S. Department of Energy (DOE) proposes to characterize, dismantle, and disposition switchyard equipment, transmission towers, and auxiliary electrical components at the Paducah Site that are no longer needed. The activity also includes rerouting the Paducah Site security fence around the switchyards, infrastructure maintenance, and construction of coverings or caps for subsequent openings that will prevent the introduction of rainwater and debris.

Detailed description: (Attach additional pages for description if necessary and include references to the documents)

The proposed actions will involve the characterization and removal of all aboveground electrical equipment, auxiliary electrical components, and associated transmission towers and equipment/inactive power lines in or near the switchyards at the Paducah Site. Components to be dismantled and/or removed may include, but not limited to, the following: large electrical equipment (e.g., main power transformers, synchronous condensers, current limiting reactors); overhead static wires, conductors, 161kV bus work, and disconnect switches; oil circuit breaker (OCBs); air circuit breakers (ACBs) including switchgear; 14kV bus ducts; static capacitors and mounting structures; grounding transformers; grounding resistors; mineral oil tanks and pumps, along with aboveground oil piping; fire protection piping and equipment; and switchyard fencing. Switchyard support structures will be dismantled with precautions to mitigate breakage of the porcelain insulators. Metals (e.g., aluminum, steel, copper) will be segregated for recycle during the removal and dismantlement process. The removed hazardous materials (e.g., asbestos, lead, mercury, polychlorinated biphenyls [PCBs]) will be dispositioned properly. Infrastructure modifications may take place to assist in dismantlement. These modifications may include removal of portions of support structure roofs and/or covers to access equipment and modification of the Paducah Site security fence to facilitate access to one or more switchyards and/or towers. Once dismantlement and removal of the equipment, components, towers, etc., is complete, permanent covers, caps, etc., will be installed over all openings made as the result of equipment and support structure removal and other infrastructure (i.e., security fencing) restored to the dismantlement area.

To ensure that sensitive resources are protected, existing maps and survey/studies on threatened and endangered (T&E) species, wetlands and floodplains, and historically sensitive areas will be used to locate and avoid or minimize any potential impacts to these areas. If warranted, additional surveys and walkovers by knowledgeable resources will be conducted to confirm or update available information. The proposed actions do not involve the removal of habitat, disturbance of

hibernacula or T&E species, or any other activity that will have a potential adverse impact to environmentally sensitive resources at the Paducah Site.

The proposed actions will be conducted in previously developed locations within the DOE Paducah Site property boundary. Primarily, work will be performed in the existing electrical switchyards within the main Paducah Site area, inside the security fence (i.e., C-535-2, C-537-2, C-531-2, and C-533-2); however, some transmission tower locations are on DOE property outside the security fence within existing transmission line corridor easements maintained by electric power providers, such as the Tennessee Valley Authority (TVA). In order to remove the large 161-kV transmission towers in the transmission line corridor easements, existing access roads will be used to the extent possible. The existing access roads may need to be improved (e.g., addition of gravel) and/or expanded to allow access to all towers to be dismantled and dispositioned. The proposed actions will not involve any construction within wetlands and mats may be used as needed to minimize any potential, temporary impacts to wetlands that are not within floodplains and disturbance of the soil in or around the towers and switchyards. The proposed actions will be conducted in a manner that does not impact any floodplains and, therefore, will not meet the definition of a floodplain or wetland action as defined in 10 *CFR* Part 1022.4. Transmission tower dismantlement and disposition that will involve potential floodplain and wetland actions as defined in 10 *CFR* Part 1022.4 are outside the scope of this categorical exclusion (CX) will need to be evaluated in further detail in a separate National Environmental Policy Act (NEPA) document.

The proposed actions within the switchyards are located above below grade solid waste management units (SWMUs); however, the activities do not have the potential to increase contamination in underlying soil and groundwater that is within the SWMU or mobilize contamination beyond the unit boundary and, therefore, no SWMU notification will be required. Concrete foundations of equipment and towers will be left in place and any wooden power poles will be cut at ground level to avoid disturbance of the soil.

Equipment, towers, and auxiliary electrical components may be size-reduced during dismantlement, loaded onto transport vehicles (e.g., railcars, trucks/trailers), and transported off-site for disposition. Recycle or reuse will be used to the extent possible. Waste generated during the project will be characterized in accordance with applicable state and federal requirements, and disposed in the on-site C-746-U Landfill in accordance with DOE/EA-1414, *Final Environmental Assessment on the Implementation of the Authorized Limits Process for Waste Acceptance at the C-746-U Landfill Paducah Gaseous Diffusion Plant*, or transported off-site to an appropriate permitted treatment and/or disposal facility. Asbestos, PCBs, and other hazardous wastes will be removed, packaged, and transported off-site compliantly. Asbestos containing components will be enclosed and/or encapsulated during removal and prior to transport off-site. Oil containing components may contain up to 500 ppm PCBs and will be shipped compliantly to prevent releases to the environment, including use of secondary containment when more than residual quantities of oil are present in the equipment. The waste will be treated and/or disposed in accordance with existing permits and will not result in any adverse impact to the receiving facility.

Coverings and/or caps will be applied over openings, in support structures or elsewhere within the switchyards, resulting from equipment removal. This will reduce the amount of debris and water that could infiltrate the switch house, switch house basement, and/or other openings.

Air emissions from the proposed actions are expected to be minimal, localized, and temporary in nature, and in compliance with applicable permits and regulations, including fugitive emission regulations. A negligible increase in air emissions associated with off-site transportation may occur from a small, temporary increase in the employee workforce and increase in the number of off-site shipments.

Although the switchyards are within the proposed historic district for the Paducah Gaseous Diffusion Plant, the switchyards were evaluated and documented as part of the intensive cultural resources survey of the Paducah Site completed in 2006 (BJC/PAD-688/R1, March 2006). The removal activities fall within a programmatic exclusion for electrical systems of the Kentucky State Historic Preservation Office (SHPO)-approved *Cultural Resource Management Plan for the Paducah Gaseous Diffusion Plant, Paducah, Kentucky* (CRMP) (BJC/PAD-691/R1, March 2006). In accordance with the Kentucky SHPO-approved CRMP, the proposed actions are excluded from further action under the CRMP and National Historic Preservation Act and do not require Kentucky SHPO review.

No known extraordinary circumstances will be associated with the actions that might affect the significance or the environmental effects of the proposed action based on past similar actions. These actions will not be connected to other actions with potentially significant impacts or related to other proposed actions with cumulatively significant impacts. These actions will meet the conditions that are integral elements of the classes of actions that may be categorically excluded from further NEPA documentation.

| Questions to answer: *A checklist is required to be submitted, evaluated, and approved for all proposed non-CERCLA actions so that a NEPA review may be performed. | Yes | No |
|---|-------------------------------------|-------------------------------------|
| 1. Will this activity result in a change in emissions, generation rates, or new discharge of hazardous, mixed, radioactive, asbestos, PCB, sanitary/industrial, solid or liquid waste, petroleum substance, wastewater, or any other pollutants from a facility or process? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Will this activity be located in a previously developed area? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Will this activity involve siting, construction, modification, renovation, closure, or shutdown of facilities or processes? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 4. Will this activity potentially affect environmentally sensitive areas/resources such as flood plain/wetlands, archeological or architectural historic properties, threatened or endangered species, and/or their habitat, special water sources (e.g. aquifer)? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 5. Will this activity involve site characterization, environmental monitoring, or R&D programs? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 6. Will this activity involve any type of land disturbance, underground storage tank (UST), or subsurface injection/extraction? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 7. Will this activity involve a site evaluation area, RCRA/CERCLA area/facility? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| *Note: - If any answers to these questions are unknown, call the contractor Project Environmental Coordinator Manager, PPPO Project Manager, or PPPO NCO for consultation. - If any are marked "Yes", complete rest of NEPA Checklist. | | |
| Environmental Impacts Evaluation (Note: If any are "Yes", provide specifics/supplemental information.) | | |
| Air: | | |
| • Will there be a new air emission or a change in the quantity of an existing air emission? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Surface Water: | | |
| • Will there be a liquid release to streams, wetlands, seepage basins, storm drains, process sewers, ponds, or lakes? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| • Will river or stream water be utilized? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Groundwater: | | |
| • Will there be a discharge to subsurface/groundwater? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| • Will groundwater be utilized? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Safety: | | |
| • Is there a potential exposure to hazardous substances (e.g. radiological/toxic/chemical materials)? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| • Is there a potential for explosion or criticality? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| • Does action involve transportation of hazardous materials? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Natural/Cultural Resources: | | |
| • Is there a potential for impacts on wetlands, streams, ponds, floodplains (or floodways), or special sources of water such as sole-source aquifers? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| • Is there a potential impact on fish/wildlife resources or habitats? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| • Is there a potential impact on protected species (e.g. sensitive, state or federally listed rare, threatened, or endangered) or their habitat? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| • Will this involve/effect any genetically engineered organism, synthetic biology, governmentally designated noxious weeds or invasive species? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| • Is there a potential for impacting archaeological or architectural historic properties? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| • Does this action require an excavation permit? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Potential Cumulative Effects/Components for Larger Line Item Project: | | |
| • Are there potential cumulative effects when combined with other actions? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| • Is the proposed activity a component of a larger line item project? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| • Write in document title or reference number: | | |

| For Contractor Project Management Use Only | | |
|---|--------------------------------------|--------------------------|
| Contractor Project Contact Printed Name and Signature: | Contractor Company Name: | Telephone Number: |
| Cheryl L. Baker/ <i>CL Baker</i> | Four Rivers Nuclear Partnership, LLC | (270) 441-6008 |

| For DOE PPPO NEPA Compliance Officer Use Only (NEPA recommendation) | | | |
|--|-------------------|-------------------|-------------------|
| <input checked="" type="checkbox"/> CX applied for by DOE Project Coordinator (Must meet all requirements of 10 CFR 1021.410(b) (Provide CX applicable number(s) below) | | | |
| _____ B4.10 _____ | _____ B1.11 _____ | _____ B1.17 _____ | _____ B1.24 _____ |
| _____ | _____ | _____ | _____ |

Covered by previous NEPA documentation (CX, EA, EIS): CX 451.1a-054, Management of Polychlorinated Biphenyl Containing Materials

(Write in document title or reference number(s))

Additional NEPA documentation required: EA EIS Revised ROD Revised FONSI

PPPO Project Manager Printed Name and Signature:

William Wessel

DN: c=us, o=u.s. government, ou=department of energy,
ou=Energy IT Services, ou=Portsmouth Paducah Project
Office, ou=People, cn=William Wessel
Date: 2020.05.11 13:14:10 -0500

Date NEPA Checklist Completed:

For DOE PPPO NEPA Compliance Officer Use Only (NEPA determination) Based upon my review of information conveyed to me and in my possession (or attached) concerning the proposed action, as NEPA Compliance Officer (as authorized under DOE Order 451.1B), I have determined that the proposed action fits the specific class of actions, the other regulatory requirements set forth above are met, and the proposed actions are hereby categorically excluded for further NEPA review.

Approved Approved—with comments NOT approved—alternate NEPA action required

DOE PPPO NEPA Compliance Office Signature:

Cynthia A. Zvonar

Digitally signed by
Cynthia A. Zvonar

Date of Signature:

May 11, 2020