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 Portsmouth/Paducah Project Office (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 Comprehensive Environmental Response, Compensation, and Liability Act (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): **Deactivation, Surveillance, and Maintenance of the Paducah Gaseous Diffusion Plant**			**Date:** July 10, 2018
Contractor Project Contact Name: Cheryl Baker	**Telephone Number:** (270) 441-6008	**PPPO Project Manager:** Jennifer Woodard	**Telephone Number:** (270) 441-6820
Forecast Activity start date: September 12, 2014	**Estimated cost:**	**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) is deactivating and remediating the Paducah Gaseous Diffusion Plant (PGDP) in order to place it in an environmentally safe configuration and is conducting surveillance and maintenance (S&M). Anticipated deactivation activities include, but are not limited to, continued day to day operation of infrastructure and other activities associated with maintaining the plant; removal of hazardous materials from facilities, including radioactive materials; removal of equipment and systems that are no longer necessary from buildings; removal of small facilities and structures that are no longer necessary; asbestos abatement; transfer of uranium hexafluoride (UF_6) to compliant cylinders; treatment of cells and equipment to remove deposits; and modification, including isolation, and/or optimization of the electrical distribution system and other utilities for improved efficiency. These activities may also include processing of small cylinders and the filling of basements, sumps, pits, depressions, etc., in buildings with appropriate backfill materials, including flowable fill or other similar materials, such as sand, gravel, and/or clean soil. General S&M activities include, but are not limited to, inspections, surveillances, and monitoring activities; Nuclear Criticality Safety (NCS) moisture control activities within facilities; and non-routine maintenance, such as repairing storm or anomalous damage to facilities and equipment, etc.

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

DOE is deactivating and remediating the plant in order to place it in an environmentally safe configuration and is conducting S&M on the plant until future actions are determined.

DOE anticipates that several types of activities will take place during deactivation and S&M. Anticipated deactivation activities include continued operation of infrastructure and other activities associated with maintaining the plant; removal of hazardous materials from facilities, including radioactive materials; removal of equipment and systems that are no longer necessary from buildings; removal of small facilities and structures that are no longer necessary; asbestos abatement; transfer of UF_6 to compliant cylinders; treatment of cells and equipment to remove deposits; and modification, including isolation, and/or optimization of the electrical distribution system and other utilities for improved efficiency.

Some deactivation and S&M actions were analyzed in an environmental assessment prepared by the Nuclear Regulatory Commission (NRC) for PGDP operation (NRC Environmental Assessment [EA]). A Finding of No Significant Impact was published in the Federal Register, (59 FR 48957). Many planned deactivation and S&M activities are within the scope of the NRC EA, including day to day operation of infrastructure and other activities associated with maintaining the plant. These activities also include, but are not limited to, modification of facilities to eliminate hazardous materials, systems, processes, etc. that are no longer necessary; recategorization of facilities to enable a reduced level of S&M; processing of small cylinders; and filling of basements, sumps, pits, depressions, etc., in buildings with appropriate backfill materials, including flowable fill or other similar materials, such as sand, gravel, and/or clean soil. It is environmentally desirable to remove the uranium deposits from the equipment. This would require modification of equipment to allow material removal. General S&M activities include, but are not limited to, inspections, surveillances, and monitoring activities; NCS moisture control activities within facilities; and non-routine maintenance, such as repairing storm or anomalous damage to facilities and equipment, etc.

Generally, the environmental impacts of deactivation and S&M will be reduced from the impacts associated with the former enrichment operations. There may be short-term increases in impacts, but there will be an overall reduction because the facility will be in an environmentally safer condition.

Air emissions would be reduced from the emissions that occurred during enrichment operations because the enrichment process has been shut down and only essential systems required for maintaining cascade piping and equipment are operated. Those systems are operated on an intermittent basis.

Water consumption and discharges will be reduced. The reduced power consumption also will reduce the amount of water used by the site. The water used by the site is withdrawn from the Ohio River, treated, and distributed. The reduced withdrawal of water from the Ohio River would reduce any possible impact to threatened and endangered mussels in the river. Plant water and storm water are discharged through permitted outfalls into nearby streams. Impacts of water discharge during deactivation are expected to be less than the impacts of enrichment operations.

DOE will take appropriate regulatory actions, including permit transfers and modifications, for deactivation of the PGDP. The area to be impacted by deactivation is within the designated historic district at the Paducah Site. The structures in the historic district have been documented in a Cultural Resources Survey; and the proposed deactivation activities, including demolition of structures, are within the scope of the approved Cultural Resources Management Plan. No further consultation with the State Historic Preservation Officer is required.

No impacts to delineated wetlands or other sensitive resources have been identified. No known extraordinary circumstances would be associated with these actions that might affect the significance or the environmental effects of the proposed action based on past similar actions. These actions would not be connected to other actions with potentially significant impacts or related to other proposed actions with cumulatively significant impacts; they would meet the conditions that are integral elements of the classes of actions which may be categorically excluded from further National Environmental Policy Act (NEPA) documentation. Should the action not meet the conditions for categorical exclusion (CX) consideration, a separate NEPA review would occur and any necessary next steps pursuant to NEPA would be determined based upon the review.

National Environmental Policy Act (NEPA) Checklist

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?	☒	☐
2. Will this activity be located in a previously developed area?	☒	☐
3. Will this activity involve siting, construction, modification, renovation, closure, or shut-down of facilities or processes?	☒	☐
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)?	☐	☒
5. Will this activity involve site characterization, environmental monitoring, or R&D programs?	☒	☐
6. Will this activity involve any type of land disturbance, underground storage tank (UST), or subsurface injection/extraction?	☒	☐
7. Will this activity involve a site evaluation area, RCRA/CERCLA area/facility?	☒	☐
***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?	☒	☐
Surface Water:		
• Will there be a liquid release to streams, wetlands, seepage basins, storm drains, process sewers, ponds, or lakes?	☒	☐
• Will river or stream water be utilized?	☒	☐
Groundwater:		
• Will there be a discharge to subsurface/groundwater?	☐	☒
• Will groundwater be utilized?	☐	☒
Safety:		
• Is there a potential exposure to hazardous substances (e.g. radiological/toxic/chemical materials)?	☒	☐
• Is there a potential for explosion or criticality?	☒	☐
• Does action involve transportation of hazardous materials?	☒	☐
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?	☐	☒
• Is there a potential impact on fish/wildlife resources or habitats?	☐	☒
• Is there a potential impact on protected species (e.g. sensitive, state or federally-listed rare, threatened, or endangered) or their habitat?	☐	☒
• Will this involve/effect any genetically engineered organism, synthetic biology, governmentally-designated noxious weeds or invasive species?	☐	☒
• Is there a potential for impacting archaeological or architectural historic properties?	☒	☐
• Does this action require an excavation permit?	☒	☐
Potential Cumulative Effects/Components for Larger Line Item Project:		
• Are there potential cumulative effects when combined with other actions?	☐	☒
• Is the proposed activity a component of a larger line item project?	☐	☒
• Write in document title or reference number:		

For Contractor Project Management Use Only		
Contractor Project Contact Printed Name and Signature: Cheryl Baker Cheryl L Baker	**Contractor Company Name:** **Four Rivers Nuclear Partnership, LLC**	**Telephone Number:** **(270) 441-6008**

For DOE PPPO NEPA Compliance Officer Use Only (NEPA recommendation)

☒ CX applied for by DOE Project Coordinator (Must meet all requirements of 10 *CFR* 1021.410(b)
(Provide CX applicable number(s) below)

B1.28 _____ _____ _____

_____ _____ _____ _____

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☒ Covered by previous NEPA documentation (CX, EA, EIS): NRC EA, DOE/EIS-0359
(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:	Date NEPA Checklist Completed:
Jennifer Woodard Jennifer Woodard	7/6/18

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:	Date of Signature:
Cynthia Zvonar	7-17-18

Environmental Impacts Evaluation Supplemental Information:

Operation of infrastructure as described in the NRC EA would continue to have small environmental impacts. These impacts include continued air emissions, liquid discharges, water withdrawal, handling of hazardous substances, waste shipments. Maintenance of the facility will include maintenance of the structures in the historic district and excavation to repair utilities. Some excavations may occur in Solid Waste Management Units as designated by the Hazardous Waste Facility Permit.