



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

## Environmental Evaluation Checklist

PPPO-F-450.1

Revision 1

February 2006

### National Environmental Policy Act Review

**Instructions:**

- Complete both the NEPA and Permits portion of the checklist
- Submit one copy of the completed checklist with supplemental information to the DOE Project Coordinator
- DOE Project Coordinator will distribute to PPPO NEPA Compliance Officer for approval

Activity title and project number (if any)

Waste Minimization, Recycling, and Reuse Categorical Exclusion (CX)

Date:

4/30/08

Project contact name

Telephone number

DOE Project Coordinator

Telephone number

Activity start date  
5/14/08

Activity end date  
5/14/13 *HW*  
N/A *2-10-17*

Estimated cost  
Up to \$5M

Activity location  
PORTS/PAD Sites

**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 existing building number, etc.)

The DOE Portsmouth Paducah Project Office (PPPO) proposes to minimize the generation of waste by separating and recycling useful components of waste streams and by installing equipment that would result in better utilization of existing resources. Also, DOE-PPPO proposes to conduct laboratory research on (1) materials, equipment, and components that would be used to minimize waste and (2) ways to minimize the disposal of waste materials.

**Detailed description:** (Attach additional pages for description if necessary and include reference documents)

The proposed actions would take place at DOE-owned facilities on the DOE Portsmouth Gaseous Diffusion Plant Reservation (PORTS) at Piketon, Ohio and the Paducah Gaseous Diffusion Plant at Paducah, Kentucky.

The proposed actions would involve the use of new equipment and vendor services that would result in waste minimization and reuse of materials. Materials used in waste minimization, as well as the equipment and the proposed process, would be reviewed by compliance or other responsible personnel to ensure compliance with existing state and federal laws and with all applicable environment, safety, and health permit requirements. The proposed action would involve, but not be limited to the following:

**Minor operational changes at existing facilities to minimize waste generation and for reuse of materials.** This would include (but not be limited to) adding filtration and recycle piping to allow reuse of machine oil, setting up sorting areas to improve process efficiency, and segregating previously co-mingled waste streams. Debris collected in the filtration process would be disposed of in accordance with existing waste management procedures and practices. Other than occasional filter replacement, no new or increased effluents, air emissions, or solid wastes would be generated as a result of operational changes.

**Pulping of paper materials.** This would include installation of a pulping system in an existing facility for treating non-recyclable paper or paper-type materials. The process would use only water (and no chemicals) for pulping. The pulp would be used in grass-scending actions, as insulation material, etc. Waste generated would include wastewater that would be treated at existing wastewater treatment facilities. Airborne emissions generated during the pulping process would include small amounts of chemicals released from wet paper materials, which would be released to the atmosphere either through a permitted/approved released source or one that would be exempt from permitting for this type of action.

**Cleaning coolant and cutting fluids.** This would include installation of equipment for recycling nonradioactive, nonhazardous machine coolant and/or cutting fluids. The coolant or cutting fluids would be reused in routine shop operations. Residual shavings and small pieces of metal separated from the fluids would be disposed of as scrap metal. Rinse water generated from equipment cleaning would be disposed of as processed wastewater in existing wastewater systems. No new or increased regulated airborne releases would result from the recycling process.

**Concentrating sewage sludge materials.** This would include installation of sludge dewatering systems that might involve a centrifuge to separate solids from the supernatant, as well as installation of oven dryers to remove liquids. Liquid wastes generated would be returned for further treatment and disposal by existing sewage treatment systems. The solid wastes would be placed in approved disposal containers for storage in accordance with the levels and types of contamination. Airborne emissions would be discharged through an exhaust system with an approved air permit, if applicable.

**Conducting indoor laboratory research actions.** This would involve studying ways to minimize the generation of waste, as well as segregation and reuse of waste materials. Small amounts of routine laboratory wastes would be generated and then collected, handled, and disposed of according to standard waste management procedures and regulatory requirements. Airborne emissions would be discharged through existing laboratory hoods with an approved air permit, if applicable.

**Improving utilities service.** This would involve installation of equipment and components (primarily control systems) to improve the efficiency of utility services, including heating/ventilating/air conditioning, water, steam, etc. Wastes would include small amounts of conduit, electrical wiring, paper and plastic. All waste materials generated would be collected at the sites and transferred to existing facilities for recycling/disposal. No liquid wastes would be generated, stored, or disposed of as part of the proposed action. In addition, no regulated airborne releases would result from the proposed action.

**Recycling of fluorescent-light materials.** This would involve packaging and transfer of fluorescent light bulbs and light fixtures to an off-site vendor for recycling and reuse of materials and components. The polychlorinated biphenyl (PCB)-containing ballasts would be removed and disposed of as a Toxic Substances Control Act waste. No liquid or gaseous waste would be generated.

**Recycling equipment.** Recycling receptacles for collection of recycling materials will be placed throughout the facility. Equipment, such as cardboard baler and storage containers, may be installed and operated to assist recycling efforts.

Any waste remaining after volume reduction and recycling efforts would continue to be disposed of by acceptable practices. Wastes that are not toxic or hazardous would be disposed of at the local off-site landfill facility or an existing on-site waste disposal facility. Materials that can no longer be recycled would be disposed of in accordance with waste management procedures of existing facilities. No major actions, such as construction or large-scale operational changes, would occur that would generate large volumes of waste materials.

The proposed waste minimization and reuse actions that would take place on the Paducah site have been reviewed in accordance with the *Cultural Resource Management Plan (CRMP)* (BJC/PAD-691/R1, March 2006) or applicable sections in a Ratified Programmatic Agreement (PA) document and would not result in an adverse effect to historic properties included or eligible for inclusion in the National Register of Historic Places (National Register). If the proposed actions would have an adverse effect on properties included or eligible for inclusion in the National Register, DOE PPPO would follow the mitigative measures listed in the CRMP.

For sites other than the Paducah reservations, DOE-PPPO would complete Section 106 reviews until PAs are ratified for the respective sites. At such time, the sites would conduct Section 106 reviews under provisions of the site-specific PA.

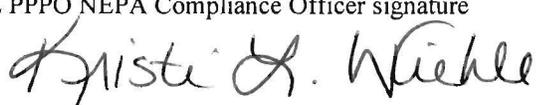
Should the proposed waste minimization and reuse actions involve ground disturbances at locations where an archeological survey had not been conducted or take place at previously disturbed locations where the potential exists to exceed the depth of previous ground disturbances, DOE/PPPO would consult with the State Historic Preservation Office to determine whether an archeological survey would be warranted prior to initiating the proposed actions.

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 would be used to locate these areas. In addition, personnel responsible for identifying these resources would be consulted and, if warranted, additional surveys and walkovers would be conducted to confirm or update available information.

No known extraordinary circumstances would be associated with these actions that might affect the significance of the environmental effects of the proposed action based on past similar actions. These actions would not be connected to other 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 Environment Policy Act (NEPA) documentation. Should the action not meet the conditions for CX consideration, a separate specific NEPA determination would be made.

Although an action might fall under the category of "waste minimization and reuse," a separate NEPA review would be performed and documented should the action or related/cumulative effect of the action have the potential to result in an unusual or significant impact to the environment.

## National Environmental Policy Act (NEPA) Checklist

<b>Questions to answer:</b> *A checklist is required to be submitted, evaluated, and approved for all proposed site actions and projects that have the potential to meet any of the following:	<b>Yes</b>	<b>No</b>
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 type="checkbox"/>	<input type="checkbox"/>
2. Will this activity be located in a previously developed area?	<input type="checkbox"/>	<input type="checkbox"/>
3. Will this activity involve siting, construction, modification, renovation, closure or D&D of facilities or processes?	<input type="checkbox"/>	<input type="checkbox"/>
4. Will this activity potentially affect environmentally sensitive areas/resources such as flood plain/wetlands, archeologically or historically significant areas, threatened or endangered species, and/or their habitat, special water sources (e.g. aquifer)?	<input type="checkbox"/>	<input type="checkbox"/>
5. Will this activity involve site characterization, environmental monitoring, or R&D programs?	<input 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 type="checkbox"/>
7. Will this activity involve a site evaluation area, RCRA/CERCLA area/facility?	<input type="checkbox"/>	<input type="checkbox"/>
<b>*Note:</b> - If any unknown, call DOE PPPO NEPA Compliance Officer or Project Environmental Coordinator for consultation - Consult with DOE PPPO NEPA Compliance Officer or Project Environmental Coordinator; file with project & complete permits checklist - If any are marked "Yes", complete rest of NEPA checklist and permits checklist		
<b>Environmental Impacts Evaluation</b> (Note: If any are "Yes", provide specifics/supplemental information.)		
<i>Air</i>		
• Will there be a new air emission or a change in the quantity of an existing air emission?	<input type="checkbox"/>	<input type="checkbox"/>
<i>Surface Water</i>		
• Will there be a liquid release to streams, swamps, wetlands, seepage basins, storm drains, process sewers, ponds, or lakes?	<input type="checkbox"/>	<input type="checkbox"/>
• Will river or stream water be utilized?	<input type="checkbox"/>	<input type="checkbox"/>
<i>Groundwater</i>		
• Will there be a discharge to subsurface/groundwater?	<input type="checkbox"/>	<input type="checkbox"/>
• Will groundwater be utilized?	<input type="checkbox"/>	<input type="checkbox"/>
<i>Safety</i>		
• Is there a potential exposure to hazardous substances (e.g. radiological/toxic/chemical materials)?	<input type="checkbox"/>	<input type="checkbox"/>
• Is there a potential for explosion or criticality?	<input type="checkbox"/>	<input type="checkbox"/>
• Does action involve transportation of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>
<i>Natural/Cultural Resources</i>		
• Is there a potential for impacts on wetlands, swamps, streams, river beds, ponds, set aside areas?	<input type="checkbox"/>	<input type="checkbox"/>
• Is there a potential impact on fish/wildlife resources or habitats?	<input type="checkbox"/>	<input type="checkbox"/>
• Is there a potential impact on protected species (e.g. sensitive, rare, threatened, or endangered)?	<input type="checkbox"/>	<input type="checkbox"/>
• Is there a potential for impacting archaeological and historical sites?	<input type="checkbox"/>	<input type="checkbox"/>
• Does this action require an excavation permit?	<input type="checkbox"/>	<input type="checkbox"/>
<b>For DOE PPPO NEPA Compliance Officer use only</b> (NEPA recommendation)		
• Are there potential cumulative effects when combined with other actions?	<input type="checkbox"/>	<input type="checkbox"/>
• Is the proposed activity a component of a larger line item project?	<input type="checkbox"/>	<input type="checkbox"/>
• Write in document title or reference number:		
X CX applied for by DOE Project Coordinator (Must meet all requirements of 10 CFR 1021.410(b)): B3.6 and B6.8  <input type="checkbox"/> Covered by previous NEPA documentation (CX, EA, EIS): (Write in document title or reference number)  <input type="checkbox"/> Additional NEPA documentation required: <input type="checkbox"/> EA <input type="checkbox"/> EIS <input type="checkbox"/> Revised ROD <input type="checkbox"/> Revised FONSI <input type="checkbox"/> EE/CA		
DOE Project Coordinator signature	Date checklist completed:	
<b>For DOE PPPO NEPA Compliance Officer Use Only (NEPA determination)</b> The Waste Minimization and Reuse Categorical Exclusion was developed to cover these types of activities for the DOE PPPO. A NEPA Environmental Checklist will be completed for each specific activity that uses this generic CX. Once completed, the NEPA Environmental Checklist will be filed and maintained as part of the project records. Based on my review of the above description, I have determined that the actions are categorically excluded from further NEPA review and documentation.		
X Approved <input type="checkbox"/> Approved - with comments <input type="checkbox"/> NOT approved – alternate NEPA action required		
DOE PPPO NEPA Compliance Officer signature	Date of signature:	
	5-19-08	