

Categorical Exclusion Determination

Bonneville Power Administration

Department of Energy



Proposed Action: Paul Substation 500-kV Reactor Installation

Project Manager: Charla Burke

Location: Lewis County, Washington

Categorical Exclusion Applied (from Subpart D, 10 C.F.R. Part 1021): B4.11 Electric power substations and interconnection facilities

Description of the Proposed Action: BPA is proposing to install new equipment and expand its Paul Substation yard near the City of Centralia in Lewis County, WA. High voltages along the main grid bus during light load conditions are in violation of North American Electric Reliability Corporation (NERC) reliability requirements, cause undue degradation of substation and line components, and could compromise system reliability. The installation of the new equipment would provide the required voltage support during light load conditions to ensure system reliability and compliance with NERC requirements.

In order to complete the project, BPA would expand the northeastern corner of Paul Substation yard by approximately 1.6 acres within BPA fee-owned property. BPA would remove components of an existing septic system to accommodate the expansion and install new components in a new location, including a concrete septic tank, effluent filter, distribution box, and a drainfield consisting of four 100 foot-long 4 inch-diameter perforated PVC pipe leach lines. A backhoe would excavate a four foot deep hole for new concrete footings, concrete footings would be poured, and three new single phase 60 megavolt ampere reactive (MVAR) 550-kilovolt (kV) shunt reactors would be attached to the footings. BPA would install new equipment associated with the new reactors in the expansion area, including three new 3000 ampere (A) 50 thousand ampere (KA) circuit breakers, four new 3000 A disconnect switches, station service transformer and panelboards, protective relaying, bus, steel support, overhead grounding wire, and conduit, and replace two rod gaps with new surge arresters. Control cables and wiring would be installed in underground conduit to connect the new reactors and associated equipment with the control house. To install the conduit, trenches would be excavated up to three feet deep from the new reactors to connect with existing manholes and underground conduit ducts. A new grounding mat would be installed 18 inches below grade in the expansion area, and connected to the existing substation mat. The perimeter fence would be extended to enclose the expansion area, and a new stormwater detention basin sized in accordance with applicable laws and regulations would be installed to augment existing stormwater management facilities. All disturbed areas within the substation yard would be graded and rocked.

The proposed project would require that BPA temporarily disturb up to 14.0 acres for construction activities and equipment storage, and permanently disturb approximately 3.5 acres to accommodate the substation expansion, installation of new equipment, drainfield relocation, and detention basin construction within the limits of previously disturbed BPA fee-owned land. Disturbance would result from the movement of construction vehicles and heavy equipment, organics/soil/debris removal, grading, and the addition and compaction of fill materials.

Findings: In accordance with Section 1021.410(b) of the Department of Energy's (DOE) National Environmental Policy Act (NEPA) Regulations (57 FR 15144, Apr. 24, 1992, as amended at 61 FR 36221-36243, July 9, 1996; 61 FR 64608, Dec. 6, 1996, 76 FR 63764, Nov. 14, 2011), BPA has determined that the proposed action:

- (1) fits within a class of actions listed in Appendix B of 10 CFR 1021, Subpart D (see attached Environmental Checklist);
- (2) does not present any extraordinary circumstances that may affect the significance of the environmental effects of the proposal; and
- (3) has not been segmented to meet the definition of a categorical exclusion.

Based on these determinations, BPA finds that the proposed action is categorically excluded from further NEPA review.

/s/ Zach Gustafson

Zach Gustafson
Contract Environmental Protection Specialist
David Evans and Associates, Inc.

Reviewed by:

/s/ Gene Lynard

Gene Lynard
Supervisory Environmental Protection Specialist

Concur:

/s/ Stacy L. Mason

Stacy L. Mason
NEPA Compliance Officer

Date: April 7, 2015

Attachment(s): Environmental Checklist

Categorical Exclusion Environmental Checklist

This checklist documents environmental considerations for the proposed project and explains why the project would not have the potential to cause significant impacts on environmentally sensitive resources and would meet other integral elements of the applied categorical exclusion.

Proposed Action: Paul Substation 500-kV Reactor Installation

Project Site Description

The project site is located on BPA fee-owned property northeast of the City of Centralia. The site consists of control houses, maintenance and equipment sheds, transmission lines and towers, substation equipment, and graveled and paved areas for vehicle circulation and equipment storage. The surrounding landscape includes a mixed broadleaf and conifer forest, industrial development, and scattered rural residences. Vegetated areas of the proposed project site are previously disturbed with evidence of fill and grading. Existing vegetation is primarily non-native forbs and grasses, and invasive weeds. Much of the site has been cleared and is regularly mowed to accommodate the transmission lines and towers present on the site. Three emergent wetlands were identified within the project area.

Evaluation of Potential Impacts to Environmental Resources

Environmental Resource Impacts	No Potential for Significance	No Potential for Significance, with Conditions
1. Historic and Cultural Resources	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<p><u>Explanation:</u> Washington State Department of Archaeology and Historic Preservation (DAHP) concurrence with no effect determination June 11, 2014. Tribes consulted: the Confederated Tribes and Bands of the Yakama Nation, the Cowlitz Indian Tribe, the Quinalt Indian Nation, and the Confederated Tribes of the Chehalis Reservation.</p> <p><u>Mitigation:</u></p> <p>✓ In the event any archaeological material is encountered during project activities, the following actions should be taken:</p> <ul style="list-style-type: none">• Stop work in the vicinity and immediately notify the BPA environmental lead, a BPA archaeologist, appropriate BPA project staff, interested Tribes, Washington State DAHP, and the appropriate county, state, and federal agencies.• Implement reasonable measures to protect the discovery site, including any appropriate stabilization or covering.• Take reasonable steps to ensure the confidentiality of the discovery site, including restricting access.		
2. Geology and Soils	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<p><u>Explanation:</u> 3.5 acres of permanent disturbance for substation expansion and detention basin construction.</p> <p><u>Mitigation:</u></p> <p>✓ Implement erosion and sediment control best management practices (BMPs) immediately after clearing and prior to initiating ground disturbing activities to prevent erosion and runoff.</p> <p>✓ Limit the amount of time soils are left exposed. Use BMPs on exposed piles of soil to reduce erosion potential from rain or wind.</p>		

3. **Plants** (including federal/state special-status species)

Explanation: Vegetation and rare plant survey conducted June 23, 2014 by Turnstone Environmental Consultants, Inc. No federally-listed or state special-status plant species are present. Two Lewis County 'B-select' weeds identified in the project area. 3.5 acres of non-native forbs, grasses, and invasive weeds to be removed.

Mitigation:

- ✓ Reseed disturbed areas with a regionally appropriate seed mix and apply mulch.
- ✓ Clean and inspect all construction vehicles and equipment for weeds prior to accessing the project site.

4. **Wildlife** (including federal/state special-status species and habitats)

Explanation: Washington State Department of Fish and Wildlife Priority Habitats and Species Interactive map server includes the project site within Priority Habitat for elk (*Cervus elaphus*). No special-status species or designated habitat present at the project site. Project area has been previously disturbed for construction of substation and associated access roads.

5. **Water Bodies, Floodplains, and Fish** (including federal/state special-status species and ESUs)

Explanation: The project site is located 0.3 miles south of Hanaford Creek and its associated 100-year floodplain, which contains migration habitat for coho salmon and steelhead trout; no other listed fish species are present. No in-water work is proposed for the project.

Mitigation:

- ✓ Implement erosion and sediment control best management practices (BMPs) immediately after clearing and prior to initiating ground disturbing activities to prevent erosion and runoff.
- ✓ Do not allow petroleum products, sediment, and other deleterious materials (i.e. concrete wash out) to enter any stream, wetland, waterbody, or drainage conveyance.

6. **Wetlands**

Explanation: Three palustrine emergent wetlands totaling 0.23 acres were identified and delineated by Turnstone Environmental Consultants, Inc. on June 23, 2014, and documented in a wetland delineation report dated August 15, 2014. The proposed project would permanently disturb up to 0.075 acres of wetlands.

Mitigation:

- ✓ Flag wetland no disturbance boundaries.
- ✓ Implement erosion and sediment control best management practices (BMPs) immediately after clearing and prior to initiating ground disturbing activities to prevent erosion and runoff.
- ✓ Do not allow petroleum products, sediment, and other deleterious materials (i.e. concrete wash out) to enter any stream.

7. **Groundwater and Aquifers**

Explanation: No new wells or use of ground water proposed.

Mitigation:

- ✓ Ensure spill containment and cleanup materials are readily available at the project site, staging areas, and in construction vehicles and equipment. Replace any used spill response material within 24 hours.

8. **Land Use and Specially Designated Areas**

Explanation: All work on existing BPA fee-owned property. Project area has been previously disturbed for construction of substation and associated access roads.

9. **Visual Quality**

Explanation: The additional equipment would be visually consistent with existing structures and equipment already located at the substation.

10. **Air Quality**

Explanation: Small amount of dust and vehicle emissions during construction activities.

11. **Noise**

Explanation: Temporary, intermittent noise from construction activities during daylight hours. Operation noise would not change.

12. **Human Health and Safety**

Explanation: No impact to human health and safety from the proposed project.

Evaluation of Other Integral Elements

The proposed project would also meet conditions that are integral elements of the categorical exclusion. The project would not:

- Threaten a violation of applicable statutory, regulatory, or permit requirements for environment, safety, and health, or similar requirements of DOE or Executive Orders.

Explanation, if necessary:

- Require siting and construction or major expansion of waste storage, disposal, recovery, or treatment facilities (including incinerators) that are not otherwise categorically excluded.

Explanation, if necessary:

- 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.

Explanation, if necessary:

- 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 of the Department of Agriculture, the Environmental Protection Agency, and the National Institutes of Health.

Explanation, if necessary:

Landowner Notification, Involvement, or Coordination

No notification - All work on BPA fee-owned property and no visual or other effects to adjacent landowners.

Based on the foregoing, this proposed project does not have the potential to cause significant impacts on any environmentally sensitive resources.

Signed: /s/ Zachary Gustafson

Zachary Gustafson

Environmental Protection Specialist

Date: April 7, 2015