

memorandum

DATE: May 5, 2014

REPLY TO
ATTN OF: KEC-4

SUBJECT: Environmental Clearance Memorandum

TO: Charla Burke
Project Manager – TEP-TPP-1

Proposed Action: Santiam Substation 230-kV Shunt Reactor Replacement

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

Location: Linn County, Oregon

Proposed by: Bonneville Power Administration (BPA)

Description of the Proposed Action: BPA proposes to replace equipment and expand its Santiam Substation yard near the City of Lyons in Linn County, Oregon. An existing 230-kilovolt (kV) shunt reactor used to mitigate high-voltage conditions has failed and is damaged beyond repair. To continue providing voltage support, substation operators must remove multiple 500-kV transmission lines from service. This process causes excessive wear and tear on terminal equipment, and compromises system stability and reliability. Installing a new 230-kV shunt reactor would restore proper voltage support for high-voltage conditions, and ensure system stability and reliability. Without substation yard expansion, the larger dimensions of a new reactor would create operation, maintenance, and safety hazards because it would be close to both the existing perimeter fence and the Santiam-Chemawa No.1 230-kV transmission line, which is directly overhead. Consequently, BPA would expand the substation yard and install the new reactor west of the current location to ensure adequate space for operation, maintenance, and clearance within the yard.

To carry out the project, BPA would remove and decommission the failed 230-kV reactor, its concrete footings, and an associated circuit switcher. BPA would expand the northern side of Santiam Substation yard by about 0.34 acre within BPA fee-owned property. A backhoe would excavate a 4-foot-deep hole for new concrete footings, then workers would pour the footings and attach a new 230-kV reactor. BPA would install new equipment associated with the new reactor in the expansion area, including a new 230-kV breaker, protective relaying, bus, bus supports, and conduit. Control cables and wiring would be installed in underground conduit to connect the new reactor and associated equipment with the control house. To install the conduit, trenches would be excavated up to 3-foot-deep from the new reactor and expansion area 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 grounding mat. The perimeter fence would be extended to enclose the expansion area and new reactor. All disturbed areas within the substation yard would be graded and rocked.

Disturbance would result from organics, soil, and debris removal, equipment removal and installation, excavation, grading, the addition and compaction of fill materials, and the movement of

construction vehicles and heavy equipment. The project would remove existing vegetation comprised of non-native forbs and grasses, and invasive weeds. Disturbed areas would be reseeded with a regionally appropriate seed mix and mulched. Workers would access the project site from the existing substation entrance on Substation Drive.

Findings: BPA has determined that the proposed action complies with Section 1021.410 and Appendix B of Subpart D 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). The proposed action does not present any extraordinary circumstances that may affect the significance of the environmental effects of the proposal. The proposal is not connected [40 C.F.R. 1508.25(a)(1)] to other actions with potentially significant impacts, has not been segmented to meet the definition of a categorical exclusion, is not related to other proposed actions with cumulatively significant impacts [40 C.F.R. 1508.25(a)(2)], and is not precluded by 40 C.F.R. 1506.1 or 10 C.F.R. 1021.211. Moreover, the proposed action would not (i) threaten a violation of applicable statutory, regulatory, or permit requirements for environment, safety, and health, (ii) require siting and construction or major expansion of waste storage, disposal, recovery, or treatment facilities, (iii) disturb hazardous substances, pollutants, contaminants, or Comprehensive Environmental Response, Compensation and Liability Act-excluded petroleum and natural gas products that pre-exist in the environment such that there would be uncontrolled or unpermitted releases, (iv) have the potential to cause significant impacts on environmentally sensitive resources, or (v) 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.

Based on the provisions identified on the attachment, this proposed action meets the requirements for the Categorical Exclusion referenced above. We therefore determine that the proposed action may be categorically excluded from further NEPA review and documentation.

/s/ Zachary R. Gustafson
Zachary R. Gustafson
Environmental Project Manager

Concur:

/s/ Katherine S. Pierce
Katherine S. Pierce
NEPA Compliance Officer

Date: May 5, 2014

Attachments:
Environmental Checklist for Categorical Exclusions
Provisions

PROVISIONS

This categorical exclusion will meet the following provisions:

Natural Resources

- 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.
- 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.
- Reseed disturbed areas with a regionally appropriate seed mix and apply mulch.
- Coordinate with BPA's Pollution Prevention & Abatement group (KEP) to ensure compliance with the Clean Water Act:

Cultural Resources

In the event any archaeological or historical material is encountered during project activities, the following actions should be taken:

- Stop work in the vicinity and immediately notify the BPA environmental lead, a BPA archaeologist, appropriate BPA project staff, interested Tribes, Oregon State Historic Preservation Office, 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.

Clean Water Act

To maintain Clean Water Act compliance, the project team should coordinate with BPA's Pollution Prevention and Abatement group to take the following actions:

- Ensure adequate spill prevention control and countermeasures (SPCC) are incorporated within the project design and construction.

- Update the site SPCC plan within 5 months of construction completion.

Hazardous Materials Management

- Collect, remove, and legally dispose of any construction waste, fill material unsuitable for grading and backfilling, and contaminated fill material off-site in accordance with the policies and procedures prescribed by BPA's Pollution Prevention & Abatement group, and the Oregon Department of Environmental Quality.

Environmental Checklist for Categorical Exclusions

Name of Proposed Project: Santiam Substation 230-kV Shunt Reactor Replacement

Work Order #: 339599

This project does not have the potential to cause significant impacts on the following environmentally sensitive resources. See 10 CFR 1021, Subpart D, Appendix B for complete descriptions of the resources. This checklist is to be used as a summary – further discussion may be included in the Categorical Exclusion Memorandum.

Environmental Resources	No Potential for Significance	No Potential, with Conditions (describe)
1. Historic Properties and Cultural Resources Concurrence March 27, 2014 Oregon State Historic Preservation Office. Tribes consulted: the Confederated Tribes of Siletz and the Confederated Tribes of Grand Ronde.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. T & E Species, or their habitat(s) North Santiam River is designated critical habitat for Oregon chub, Chinook Salmon, and Steelhead Trout. Implement erosion and sediment control best management practices to prevent the release of petroleum products, sediment, or other deleterious materials from entering any stream, wetland, waterbody, or drainage conveyance.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3. Floodplains or wetlands	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4. Areas of special designation Not present.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5. Health & safety	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6. Prime or unique farmlands Soil group is classified as Saltum silty clay loam, considered prime farmland. Soils at the project site are not used as farmland.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
7. Special sources of water North Santiam River. Ensure that oil-filled equipment and spill prevention control and countermeasures are designed and constructed in coordination with BPA's Pollution Prevention and Abatement group.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
8. Other (describe)	<input type="checkbox"/>	<input type="checkbox"/>

Signed: /s/ Zachary Gustafson Date: May 5, 2014