

Categorical Exclusion Determination

Bonneville Power Administration
Department of Energy



Proposed Action: Longview Region VHF Radio System Upgrades

Project No.: P01237

Project Manager: Molly Kovaka

Location: Columbia and Multnomah counties, OR; Cowlitz, Pacific, and Thurston counties, WA

Categorical Exclusion Applied (from Subpart D, 10 C.F.R. Part 1021): B1.19 Microwave, meteorological, and radio towers

Description of the Proposed Action: BPA is proposing to replace its aging VHF radio system at host facilities with a simple, modern, VHF two-way radio system in its Longview VHF radio region. The project would help BPA meet its goals of safe facilities maintenance and operations, and uninterrupted power transmission.

Required by field personnel for communication with each other and with data control centers, the BPA two-way VHF radio system is being overhauled and updated. In the Longview radio region, multiple sites have similar requirements in achieving modernization and system reinforcement. The replacement would help improve voice coverage across BPA's service area and is coordinated with similar efforts at many radio stations under BPA's "Mobile-REDI" project.

Specifically, BPA proposes to conduct the following activities in radio station and substation yards, on communications towers and within, or on the exterior of, existing buildings:

- **Retrofit Radio Sites** – Install racks and associated communications equipment that includes batteries (including vented lead-acid [VLA] and valve-regulated lead-acid [VRLA] batteries), fuse panels, other electronics including network componentry, and power supply-supporting equipment and hardware. Upgrade AC power system circuitry. Make minor alterations to existing radio transmission line ports through building walls and/or add additional adjacent ports. Install or reinforce ice bridges (metal frames supporting transmission lines) from towers to building ports. Install interior and exterior grounding bars and lightning protection. Upgrade heating, ventilation, and air conditioning (HVAC) by installing HVAC equipment using minimally-invasive wall-mounted units. Ground all new equipment by installing metal grounding bars at building interior and exterior walls and manually digging up to ten 18-inch deep holes in the station yard to bond the bars to the existing grounding mat. Small repairs would also be made to the grounding mats where needed.
- **Upgrade Tower Fall Protection** – Install the MSA Latchways cable safety system on the vertical climbing path of communication towers. The cable would be anchored to the towers at the top and bottom by new support beams and attached along its length by a series of new brackets. Once installed, workers would use the system when climbing the tower by attaching their harness to a specialized pulley which allows them to glide along the safety cable as they climb. Installation would require a line truck and two to three workers at the structure and one to two workers on the ground. Intermittent noise generation would occur from the use of hand tools to install the support beam and Latchways system and gear banging against the steel structures.

Noise would occur over six to eight hours in a single day. Where needed, tower reinforcement would not require new ground disturbance.

- **Install Backhaul Equipment** – At locations where backhaul (radio communication infrastructure that transmits the field-originated VHF data back to the central data control centers) equipment would be installed in the buildings, the associated standard drum-style microwave antennas would remain in operation. The resultant microwave beampaths would have no impact to vegetation or land surface as topography and vegetation types allow for large clearance distances between these and the beam. Install microwave signal waveguide (metal conduit) from antennas to building ports, install microwave radios and connect them to the waveguide. Retire old equipment.
- **Install Fronthaul Equipment** – Install VHF radio repeaters in the previously installed equipment racks. Replace and install up to four (4) three-inch-diameter, 20-foot-tall, “whip” (straight rod) antennas. Where fronthaul (radio communication infrastructure that collects field two-way calls over VHF signal waves) equipment would be installed, the whip antennas would pose no impact to existing viewshed resources because they would be less visible than the tower frame at the viewshed level. There would be a replacement and/or addition of the final respective number of coaxial cable runs from new antennas to the internal radio equipment. Retire old equipment.

The sites (with BPA reference codes) where VHF radio system upgrades are planned for 2018-2020, and for which NEPA review would be completed under this CX, are listed here with main elements of the work detailed:

Allston Substation (ALSN), Columbia County, OR

No exterior work, antennas, or ground disturbance required. Install interior VHF system hardware and supporting electronics.

Capitol Peak Radio Station (CAPP), Thurston County, WA

Perform grounding mat bonding in the station yard. Install four VHF whip antennas on the tower.

Longview Substation (LONG), Cowlitz County, WA

No exterior work, antennas, or ground disturbance required. Install interior VHF system hardware and supporting electronics.

Megler Radio Station (MGLW), Pacific County, WA

Perform grounding mat bonding in the station yard. Install two VHF whip antennas.

Rainier Radio Station (RAIR), Columbia County, OR

Perform grounding mat bonding in the station yard. Install two VHF whip antennas on the tower. Install MSA Latchways on tower.

West Portland Radio Station (WESP), Multnomah County, OR

Perform grounding mat bonding in the station yard. Install four VHF whip antennas on the tower. Install MSA Latchways on tower.

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/ Michael J. O'Connell
Michael J. O'Connell

Concur:

/s/ Sarah T. Biegel
Sarah T. Biegel
NEPA Compliance Officer

Date: August 22, 2018

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.

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Project Site Description

The work would take place at existing BPA facilities that include control houses of electric substations, and buildings, towers, and supporting structures of radio stations. The facilities of this project are located in the Oregon and Washington portions of BPA's service territory and are surrounded by forested areas in various stages of regrowth, or industrial or low-density development.

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"/>
<u>Explanation:</u> A BPA archaeologist and BPA Historian reviewed the proposed activities and determined that these activities do not have the potential to cause effects to historic properties.		
2. Geology and Soils	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<u>Explanation:</u> All ground disturbance would be limited to the previously-disturbed facilities' yards – mainly between the radio tower and the supporting building – and consist of up to ten manually dug holes at each site to the depth of the grounding mat (18 inches) with small expansions for grounding mat repairs as needed.		
3. Plants (including federal/state special-status species)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<u>Explanation:</u> All work would take place in graveled facility yards that are maintained to prevent plant growth.		
4. Wildlife (including federal/state special-status species and habitats)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<u>Explanation:</u> The work would be limited to the existing facilities and there would be only minimal potential disturbance to wildlife in the vicinity from the noise generated or the vehicular traffic to and from sites. Federal special-status species that could occur at the county-level include the Columbian white-tailed deer which has a population documented over 13 miles from Rainier with no observations nearer; there would be no potential to impact the species. Other federally-listed animals would be unaffected by the project because they are either not in the vicinity to the most obtrusive work (the Latchways installation), would not be affected by the other light-duty work of the project, or they inhabit unaffected environments like waterbodies. Rainier and West Portland require timing restrictions on the Latchways to prevent disturbance to Birds of Conservation Concern during breeding periods.		
<u>Note:</u>		
✓ Perform Latchways installation at Rainier outside of the April 15 to July 15 timeframe; perform Latchways installation at West Portland outside of the Mar 1 to August 31 timeframe.		

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



Explanation: The scale of ground disturbance would be small and the potential for erosion from the sites' graveled yards would be low because best management practices would be used to limit soil loss.

6. **Wetlands**



Explanation: The work would be limited to the existing facilities and the associated developed grounds with no potential effects to wetlands.

7. **Groundwater and Aquifers**



Explanation: Disturbance of facility ground would be minor and would not reach below the grounding mat at around 18 inches below the ground surface.

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



Explanation: The work would take place at existing communication facilities and no change in land use would occur.

9. **Visual Quality**



Explanation: Slight changes to the visual appearance of tower equipment like VHF whip antenna installation or replacement would not constitute changes in quality.

10. **Air Quality**



Explanation: Minor, temporary generation of emissions associated with increased vehicle traffic would occur during construction.

11. **Noise**



Explanation: Minor, intermittent noise associated with project activities would occur during construction. Latchways installation noise would produce more sustained – but also minor in volume – noise.

12. **Human Health and Safety**



Explanation: Minor exposure of asbestos or lead could occur with the described work. When work would be contracted, the contractor would have a current certified Class III Competent Person for asbestos operations and maintenance, and apply BPA-approved mitigation measures when cutting/drilling through potentially lead- or asbestos-containing materials. When the work would be performed by BPA personnel, BPA Work Standards and the Safety and Health Program Handbook for such hazards would be followed.

VLA batteries would be coupled with hydrogen detectors to monitor levels of the gas inside communications buildings. VLA and VRLA batteries would be handled in replacement procedures. Workers would take all necessary handling precautions to prevent spill or leakage. Evident spills or leaks would be neutralized using standard measures. Old batteries would be packed and shipped according to BPA Pollution Prevention and Abatement requirements.

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

Description: At sites where coordination is needed, BPA would contact the respective agencies or landowners per any agreed-upon terms and acquire permissions as needed for the described work.

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

Signed: /s/ Michael J. O'Connell
Michael J. O'Connell, ECT-4

Date: August 22, 2018