Categorical Exclusion Determination

Bonneville Power Administration
Department of Energy

Proposed Action: Pasco and Dalles VHF Radio Regions System Upgrades

Project No.: P01237

Project Manager: Molly Kovaka

Location: Multiple locations: Gilliam, Union, and Wasco counties in Oregon; and Benton, Beverly, Franklin, Garfield, Klickitat, Pullman, and Walla Walla counties in Washington

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 Pasco and Dalles VHF radio regions. 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 Pasco and Dalles radio regions, 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, 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 five 18-inch deep holes in the station yard to bond the bars to the existing grounding mat. Small repairs would be made to the grounding mats where needed.

- **Install Backhaul Equipment** – Install no more than one parabolic microwave dish that would not exceed 6 feet in diameter. Where *backhaul* (radio communication infrastructure that transmits the field-originated VHF data back to the central data control centers) equipment would be installed, the antennas would be the standard drum-style that BPA employs at many of its current facilities. The resultant microwave beampath 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.

- **Install Fronthaul Equipment** – Install VHF radio repeaters in the previously installed equipment racks. Replace and install up to four 3-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 replace – and add to the total number in a few cases – antennas of similar size and would be less visible than the tower frame.

The sites (with BPA reference code) where VHF radio system upgrades are planned for 2017-2021, and for which NEPA review would be completed under this CX, are listed here with main elements of the work detailed:

Ashe Substation (ASHE)

On Department of Energy (DOE), Energy Research and Development Administration (ERDA) land. Perform grounding mat bonding in the station yard. Install a 6-foot diameter microwave dish on the tower at 145 feet above ground.

Beverly Radio Station (BEVR)

Perform grounding mat bonding in the station yard. Install a 6-foot diameter microwave dish on the tower at 95 feet above ground. Install four VHF whip antennas on the tower.

Big Eddy Substation (BIGE)

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

Central Ferry Substation (CEFE)

Install 90-foot tall wood pole structure to support two new VHF whip antennas; install the associated transmission line and icebridge. Perform grounding mat bonding in the station yard.

Franklin Substation (FRAN)

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

Haystack Butte Radio Station (HAST)

Install two VHF whip antennas.

Lower Granite Substation (LOGT)

On United States Army Corps of Engineers (USACE) land. Perform grounding mat bonding in the station yard. Install a VHF whip antenna.

Lower Monumental Substation (LOMO)

On USACE land. Perform grounding mat bonding in the station yard. Install a VHF whip antenna.

Mount Emily Radio Station (MEMI)

On United States Forest Service (USFS) Wallowa-Whitman National Forest land. Perform grounding mat bonding in the station yard.

Pomeroy Radio Station (POMY)

Install two VHF whip antennas.

Shaniko Radio Station (SHAN)

Install two VHF whip antennas.

Skyrocket Radio Station (SKYR)

On a BPA parcel within Washington Department of Natural Resources (DNR) lands. Perform grounding mat bonding in the station yard. Install two VHF whip antennas.

Slatt Substation (SLAT)

Install a 6-foot diameter microwave dish on the tower at 145 feet above ground.

Findings: In accordance with Section 1021.410(b) of the DOE's 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 O'Connell
Michael J. O'Connell

Concur:

/s/ Sarah T. Biegel Date: *June 15, 2017*
Sarah T. Biegel
NEPA Compliance Officer

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 electric substations and their control houses; and radio station buildings, towers and supporting structures. The facilities of this project are located in the Idaho, Oregon and Washington portions of BPA's service territory.

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**	☑	☐
Explanation: A BPA archaeologist reviewed the proposed activities and determined that these activities do not have the potential to cause effects to historic properties.		
2. **Geology and Soils**	☑	☐
Explanation: 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 five manually dug holes to the depth of the grounding mat (18 inches) with small expansions for grounding mat repairs as needed. The main exception to this element consists of the wood antenna pole that would be installed in the Central Ferry Substation yard to a depth of 11 feet using mechanized excavation. Best Management Practices (BMPs) would be utilized to limit soil loss.		
3. **Plants** (including federal/state special-status species)	☑	☐
Explanation: All work would take place in graveled facility yards that are maintained to prevent plant growth. No special-status species are present.		
4. **Wildlife** (including federal/state special-status species and habitats)	☑	☐
Explanation: The work would be limited to the existing facilities, and there would be only minimal potential disturbance to wildlife in the vicinity from the temporary noise generated or the additional, temporary vehicular traffic to and from sites.		
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 this work would take place in the dry season, and BMPs would be utilized to limit soil loss.		

6.	**Wetlands**	☑	☐
	Explanation: The work would be limited to the existing facilities and the grounds therein with no potential effects to wetlands.		
7.	**Groundwater and Aquifers**	☑	☐
	Explanation: Predominant disturbance of facility ground would be minor and would not reach below the grounding mat at around 18 inches below the ground surface. The exception would be the installing of a wood antenna pole at the CEFE yard to a depth of 11 feet. The aquifer may be present and accessible at that depth; however, BMPs would prevent pollutant discharge to water sources.		
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 antenna installation or replacement would not constitute changes in quality. Microwave dishes 6 feet in diameter pose minimal impact to existing visual resources because they would be of similar color to the support tower, and would be mainly consistent with the existing hardware on the antenna.		
10.	**Air Quality**	☑	☐
	Explanation: Minor, temporary generation of emissions associated with increased vehicular traffic would occur during construction.		
11.	**Noise**	☑	☐
	Explanation: Minor, intermittent noise associated with temporary installation activities would occur during construction.		
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. Overall, the project would help BPA meet its goals of safe facilities maintenance and operations and uninterrupted power transmission.		

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 has contacted the respective agencies (DOE ERDA, USACE, USFS, and WA DNR) or other landowners and acquired permissions 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 O'Connell* Date: *June 15, 2017*

Michael J. O'Connell