

Categorical Exclusion Determination

Bonneville Power Administration
Department of Energy



Proposed Action: Redmond Region VHF Radio System Upgrades

Project No.: P01237

Project Manager: Ben Younce, TEPF-CSB-2

Location: Crook, Deschutes, Harney, Klamath, and Lake counties, OR; and Modoc county, CA

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

Description of the Proposed Action: Bonneville Power Administration (BPA) proposes to upgrade its VHF mobile radio system at BPA communication sites throughout its Mobile Radio Essential Data Infrastructure Program's Redmond Region in 2019 - 2022. Further, BPA proposes to install new radio-tower fall protection systems required for attainment of agency safety specifications on all BPA radio towers. Specifically, BPA proposes to conduct the following activities at BPA-owned or leased communication towers and within, or on the exterior of, existing communication equipment 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. Make minor new holes through building walls to install ground wires. 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 (10) 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 Latchways cable safety system on the vertical climbing path of communication towers. Anchor the cable to the towers at new support beams at the top and bottom, 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 from gear banging against the steel structures. Noise would occur over six to eight hours in a single day. If tower structural reinforcement is needed, it 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, and the existing antennas would remain in operation. Install interior and exterior ground bars and tie them into station ground loops, new VHF equipment racks, network routers, and terminal servers for the VHF radio system.
- ***Install Fronthaul Equipment*** – Install VHF radio repeaters in the previously installed equipment racks. Where needed, install additional radio equipment for reliable reception when there is signal impairment due to terrain or other obstacles. Replace and install up to two (2) three-inch-diameter, 20-foot-tall, “whip” (straight rod) antennas. Typical antenna placement would be at the tower midpoint and top. 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.

All work would occur within developed radio stations or electric substation grounds and buildings. The Redmond Region sites (with BPA reference codes) where VHF radio system upgrades are planned for 2019-2022, and for which NEPA review would be completed under this CX, are listed below. Some or all of the preceding project activities would be included at these sites; the main project elements planned at individual sites are included here:

Oregon

Adel Radio Station (ADEL), Lake County, OR

Install two (2) VHF whip antennas, and Latchways system on the tower.

Burns Radio Station (BURS), Harney County, OR

Installing one (1) VHF whip antenna on the tower.

Caption Jack Substation (CPJK), Klamath County, OR

No exterior work, antennas, or ground disturbance required. Install interior VHF secondary voter receiver and router.

Coyote Hills Radio Station (COYH), Lake County, OR

Install Latchways system and two (2) VHF whip antennas on the tower.

Glass Butte Radio Station (GBRS), Deschutes County, OR

Install two (2) VHF whip antennas on the tower.

Grizzly Mountain Radio Station (GRZM), Crook County, OR
Install Latchways system and one (1) VHF antenna on the tower.

Indian Mountain Radio Station (DEDI), Lake County, OR
Install Latchways system and two (2) VHF whip antennas on the tower.

Odell Radio Station (ODEL), Klamath County, OR
Install Latchways system and one (1) VHF antenna on the tower.

Redmond Substation (RDMD), Deschutes County, OR
No exterior work, antennas, or ground disturbance required.

Swan Lake Point Radio Station (SWAL), Klamath County, OR
Install Latchways system and two (2) VHF antennas on the tower.

California

Happy Camp Radio Station (HARS), Modoc County, CA
Install two (2) VHF antennas on the tower.

Hilltop Substation (HLTP), Modoc County, CA
Add extension on ice-bridge near building. Install Latchways system and two (2) VHF antennas on the 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, Jul. 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/ Brenda Aguirre
Brenda Aguirre
Environmental Protection Specialist

Concur:

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

Date: June 18, 2019

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: Redmond Region VHF Radio System Upgrades

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 areas surrounding the Redmond Region Mobile REDI project facilities are in various stages of forest regrowth, or by 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"/>

Explanation: A BPA archaeologist and BPA Historian reviewed the proposed activities and determined that this undertaking has no potential to effect historic properties. No further review under the National Historic Preservation Act is required.

2. Geology and Soils	<input checked="" type="checkbox"/>	<input type="checkbox"/>
-----------------------------	-------------------------------------	--------------------------

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 ten manually dug holes at each site to the depth of the grounding mat (18 inches). Where needed, grounding mat repairs would require more volume to be displaced. All material would be returned to holes after bonding or repair is completed.

3. Plants (including Federal/state special-status species and habitats)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
--	-------------------------------------	--------------------------

Explanation: 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"/>
--	--------------------------	-------------------------------------

Explanation: The work would be limited to 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. Federally listed threatened and endangered-species, except northern spotted owls, would be unaffected by the projects 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 projects, or they inhabit unaffected environments like waterbodies.

The following sites require timing restrictions on the Latchways to prevent disturbance to federally listed northern spotted owls, and bald and golden eagles in accordance with the Bald and Golden Eagles Protection Act, during breeding periods: Adel, Grizzly Mountain, Indian Mountain, and Odell.

Note:

- ✓ Perform Latchways installation at Adel, Grizzly Mountain, and Indian Mountain outside of January 1 – August 31 due to nearby nesting eagles.
- ✓ Perform Latchways installation at Odell outside of March 1 - July 31 due to nearby nesting northern spotted owls, unless surveys demonstrate owls are not breeding---

near the project site.

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



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. It would not be anticipated this depth would reach groundwater or aquifers at these typically higher elevation sites. If water were to be reached, work would be postponed to allow for drying.

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, nor would there be impacts on adjacent lands.

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 vehicular traffic would occur during construction.

11. **Noise**



Explanation: Minor, intermittent noise associated with project activities would occur during construction. Latchways and some antenna installations 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/ Brenda Aguirre
Brenda Aguirre, ECT-4
Environmental Protection Specialist

Date: June 18, 2019