

# Categorical Exclusion Determination

Bonneville Power Administration  
Department of Energy



**Proposed Action:** Kalispell and Spokane Radio Regions 2021 Group VHF System Upgrades

**Project No.:** P01237

**Project Manager:** Ben Younce, TEPF-CSB-2; Rian Dustan, TTBP-DITT-2

**Location:** Shoshone County, Idaho; Mineral and Sanders Counties, Montana; and Pend Oreille and Stevens

**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) is proposing to replace its aging VHF radio system at host facilities with a simple, modern, VHF two-way radio system in subsections of its Kalispell and Spokane 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 Kalispell and Spokane radio regions, multiple sites have similar requirements in achieving modernization and system reinforcement. The upgrades described below 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.

At the discrete sites analyzed for this CX, BPA proposes to conduct some or all of 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 communications equipment that includes batteries (including vented lead-acid [VLA] and valve-regulated lead-acid [VRLA] batteries with spill-containment as needed), fuse panels, other electronics including network componentry, 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. Reinforce ice bridges (metal frames supporting transmission lines) from towers to building ports. Install interior and exterior grounding bars and lightning protection. Ground all new equipment by installing metal grounding bars at building interior and exterior walls and manually digging 18- to 30-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.
- Install Backhaul Equipment – Backhaul is the conversion of the field-originated VHF data to a microwave-compatible form and its transmission to and from the central data control

centers. Electronic radio communication componentry would be installed in the buildings, and associated existing standard drum-style microwave antennas on radio towers would remain in operation if they are not slated for retirement. Install microwave signal waveguide (metal conduit) from antennas to building ports, install microwave radios and connect them to the waveguide. Remove and retire old equipment including antennas.

- **Install Fronthaul Equipment** – Install fronthaul (the transmission and reception of field two-way calls over VHF signal waves) VHF radio repeaters and associated electronic componentry in new or existing equipment racks. Replace and install one or two 3-inch-diameter, 20-foot-tall, “whip” (straight rod) antennas. Where 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 the new antennas to the internal radio equipment. Remove and retire old equipment.

BPA would perform abatement of existing hazardous materials (lead and asbestos) as needed before work begins at all sites. After installation, all equipment would be connected and tested. Any obsolete equipment would be removed and properly disposed of as needed.

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

**Bald Mountain Radio Station (BALD), Mineral County, Montana:** The standard Mobile-REDI scope would be performed at BALD to support the VHF system. There would be electronic equipment (fronthaul and backhaul components) and rack replacement and upgrades and associated wiring and connections in the building, and upgrading of the VHF antenna system on the radio tower. Associated retirement of old equipment would be performed. No ground disturbance or building wall penetrations would be required at BALD.

**Colville Substation (COLV), Stevens County, Washington:** In addition to the standard Mobile-REDI scope, there would be retirement of an existing microwave antenna and its associated equipment. A wall penetration would be made to connect interior waveguide grounding wire to an exterior ground bar. Outdoor work would include making numerous new grounding connections in the graveled yard that would require manual excavations to bond to the buried grounding mat.

**Granite Mountain Radio Station (GRNM), Stevens County, Montana:** The standard Mobile-REDI scope would be performed at GRNM. There would be retirement of an existing microwave antenna and its associated equipment. Outdoor work would include digging several new potholes in the graveled yard to ground equipment to the ground mat. Additionally, the radio tower at GRNM would be upgraded to meet BPA’s fall protection standard with the MSA Latchways system. A cable would be anchored to the tower at the top and bottom by new support beams and attached along its length by a series of new brackets. No ground disturbance would be required for the system’s installation, but it would create loud metallic banging noises and require a line truck and two to three workers at the structure and one to two workers on the ground. When installed, workers climb by attaching their harness to a specialized pulley which allows them to glide along the safety cable as they climb.

**Lines Creek Radio Station (LINC), Shoshone County, Idaho:** The standard Mobile-REDI scope would be performed at LINC, with no outdoor excavation needed for grounding. Existing grounding terminals would be utilized.

**Metaline Radio Station (METL), Pend Oreille County, Washington:** The standard Mobile-REDI scope would be performed at METL, with outdoor manual excavation needed for grounding new equipment and installing an additional support column to reinforce the existing cabling ice bridge. A wall penetration would be made to connect an interior ground bar via a wire to the exterior ground mat.

**Thompson Falls Radio Station (THPF), Sanders County, Montana:** The standard Mobile-REDI scope would be performed at THPF, with several outdoor, manually-dug holes that would be needed for grounding new equipment to the grounding mat. In addition to the VHF antennas and associated equipment installations on the tower, ice bridge and building, the ice bridge would need to be extended on both sides to protect cable runs completely. This may involve new support column installation, but at the very least would require securing aerial bridge sections to both ends of the existing bridge.

**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/ Michael J. O'Connell

Michael J. O'Connell  
Environmental Protection Specialist

Concur:

/s/ Katey C. Grange                      August 27, 2021

Katey C. Grange                      Date  
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.

**Proposed Action:** Kalispell and Spokane Radio Regions 2021 Group VHF System Upgrades

## **Project Site Description**

The work would take place at existing BPA facilities that include control houses at substations; and buildings, towers, and supporting structures at radio stations. Work would occur in previously disturbed graveled facility yards. These facilities are located in five counties distributed among Idaho, Montana and Washington, and are surrounded by forested landscapes in various stages of regrowth, or in dry shrubland. Surface water features of note are few and not in the immediate vicinity of the sites, for example, THPF is over 0.8 mile from Noxon Reservoir.

## **Evaluation of Potential Impacts to Environmental Resources**

### **1. Historic and Cultural Resources**

Potential for Significance: No

Explanation: A BPA archeologist and historian determined the work at all sites would have no potential to affect cultural resources per CFR 800.3(a)(1) and thus no consultations with State Historical Preservation Offices or Tribal Historic Preservation Offices were initiated. The proposed work is all within the fenced grounds at the radio stations and the substation. The Thompson Falls, Granite Mountain, Lines Creek, and Bald Mountain Radio Stations were built after BPA's period of significance as defined by the Multiple Property Document and are therefore not considered historic resources. The Metaline Radio Station and the Colville Substation, although historic, are no longer considered eligible resources (for listing on the National Register of Historic Places) due to alterations that have affected their integrity. In summary, the work of this project would not affect the integrity of these resources and is considered to have no potential to affect.

### **2. Geology and Soils**

Potential for Significance: No

Explanation: All ground disturbance would mainly be between the radio tower and the supporting building in the previously-disturbed, graveled facility yards. Ten or fewer manually-dug holes at each site would be excavated to the depth of the grounding mat (typically 18-30 inches below the ground surface) with minor expansions to allow for grounding mat repairs that may be needed. Some larger excavations would be required for structural supports as described above. Excavation would be through the compacted fill material installed during the sites' initial construction or previous upgrade projects.

### **3. Plants (including Federal/state special-status species and habitats)**

Potential for Significance: No

Explanation: All work would take place in graveled facility yards that are maintained by herbicidal treatment to prevent plant growth.

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

Potential for Significance: No with Conditions

Explanation: Work would be limited to the existing facilities' developed grounds and buildings.

There would be only minimal and temporary potential disturbance to most wildlife in the vicinity from the noise generated directly at the site or from vehicular traffic to and from the sites.

While Endangered Species Act (ESA)-listed Threatened or Endangered species have the potential to occur at the sites under this project, none would be affected by the specific disturbances anticipated by the project. Of most concern for being indirectly affected because of its potential to occur over wide swaths of the landscape at shared times with field personnel, is the grizzly bear. Keeping foods and food waste in bear-resistant containers would limit the potential for human-bear conflicts. With these measures followed, the project would have no effect on ESA-Threatened and Endangered Species.

Noise from construction work could disturb breeding birds within the soundshed of the tower and building work. At GRNM, where golden eagles – protected by the Bald and Golden Eagle Act – could occur, work is scheduled to take place near the end of the species' breeding season when disturbances would tend to be less critical. Also, the habitat in the immediate vicinity does not offer typical breeding habitat of cliff walls or large trees.

At THPF where bald eagles and the rufous hummingbird could occur, there would also be no effect on the species because work would take place after the end of breeding season.

Where other birds protected by the Migratory Bird Treaty Act or those protected by the various states where the project would take place, the work would occur after the vast majority of breeding seasons end.

Notes:

- For work at Metaline and Thompson Falls Radio Stations, keep food and food waste in Interagency Grizzly Bear Committee (IGBC)-certified bear-resistant containers.
- AT GRNM, begin work no sooner than August 30, 2021 which is one day before the end of the golden eagle breeding season.

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

Potential for Significance: No

Explanation: Ground disturbance would be small and localized within existing graveled yards at all facilities. The potential for erosion would be very low to non-existent because sites are relatively level and best management practices would be used to cover and control excavated soil on-site, limiting soil loss. None of the facilities are in a floodplain nor are they in close proximity to water bodies.

#### **6. Wetlands**

Potential for Significance: No

Explanation: Work would take place within existing graveled yards with no potential to affect wetlands.

## 7. Groundwater and Aquifers

Potential for Significance: No

Explanation: Ground disturbance at the facilities would be minor and would not reach below the grounding mat at around 18-30 inches below ground surface, depending on the site.

## 8. Land Use and Specially-Designated Areas

Potential for Significance: No

Explanation: The work would take place at existing, fully-operating facilities and new equipment would be similar in nature and not out of character with existing equipment being replaced. No change in land use would occur.

## 9. Visual Quality

Potential for Significance: No

Explanation: While there would be slight changes in the types and numbers of equipment being removed and replaced on towers, these changes would not constitute a change in visual quality because materials, colors, and sizes of the new equipment would be largely similar to those of the old equipment.

## 10. Air Quality

Potential for Significance: No

Explanation: Generation of emissions and dust from increased vehicular traffic and ground disturbance from project activities would be minor, localized, and temporary.

## 11. Noise

Potential for Significance: No

Explanation: Minor and temporary intermittent noise from construction activities would occur but would not rise above typical maintenance activity noise levels nor would it disrupt other human activities in the vicinity.

## 12. Human Health and Safety

Potential for Significance: No

Explanation: Minor exposure to asbestos or lead could occur during the described work. Contractors performing the work would have a current Class III Competent Person certification for asbestos operations and maintenance, and apply BPA-approved mitigation measures when cutting/drilling through potentially lead-or-asbestos-containing materials. If BPA performs any of the work, BPA Work Standards and the Safety and Health Program Handbook for such hazards would be followed. VLA and VRLA batteries would be handled during replacement. VLA batteries would be coupled with hydrogen detectors to monitor levels of the gas inside communication buildings. Workers would take all necessary handling precautions to prevent spill or leakage. Spills or leakage would be neutralized using standard measures. Old batteries would be packed and shipped according to BPA Pollution Prevention and Abatement requirements. A Pollution Abatement Clearance (PAC) would be completed for any disturbed yard material needing disposal off-site.

### **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: N/A

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

Explanation: N/A

**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: See #12 above.

**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: N/A

### **Landowner Notification, Involvement, or Coordination**

Description: At sites where coordination is needed, BPA Realty has contacted the respective agencies or landowners per any agreed-upon terms and will acquire final permissions before any work at the affected sites can proceed.

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 August 27, 2021  
Michael J. O'Connell, ECT-4 Date  
Environmental Protection Specialist