

Categorical Exclusion Determination

Bonneville Power Administration
Department of Energy



Proposed Action: 2023 VHF System Upgrades, Kalispell and Idaho Falls Radio Regions Group

Project No.: P01237

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

Location: Bonneville and Teton Counties, Idaho; Granite, Powell, and Sanders Counties, Montana

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 Idaho Falls 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 Idaho Falls 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. A combination of all or most of the following actions would comprise a standard Mobile-REDI scope.

- 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.

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 and non-standard elements of the work described:

Bearmouth Radio Station (BEAR), Granite County, Montana: The standard Mobile-REDI scope would be performed at BEAR in addition to the installation of an MSA brand *Latchways* tower climbing safety apparatus. 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.

Cattle Creek Substation (CACR), Bonneville County, Idaho: In addition to implementing the standard Mobile-REDI scope at CACR, a new 90-foot-tall monopole would be added to the substation yard to support the new VHF antenna. This would require excavation of the existing yard substrate to bury the pole to an approximate 10-foot depth. A new port would also be installed through the communication building wall to run cable for the new VHF antenna.

Garrison Substation (GARR), Powell County, Montana: The standard Mobile-REDI scope would be performed at GARR with the exception of tower antenna or other tower work above ground level.

Patricks Knob Radio Station (PATS), Sanders County, Montana: The standard Mobile-REDI scope would be performed at PATS.

Swan Valley Radio Station (SWVR), Bonneville County, Idaho: The standard Mobile-REDI scope would be performed at SWVR and would include retirement of existing VHF antennas and associated equipment.

Targhee Substation (TARG), Teton County, Idaho: The standard Mobile-REDI scope would be implemented at TARG.

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/ Sarah T. Biegel

Sarah T. Biegel
NEPA Compliance Officer

July 5, 2023

Date

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: 2023 VHF System Upgrades, Kalispell and Idaho Falls Radio Regions Group

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 also occur in previously-disturbed, graveled facility yards on BPA fee-owned property, or in the case of PATS, US Forest Service-owned land (Lolo National Forest). These facilities are located in five counties in Idaho or Montana and are surrounded by forested landscapes in various stages of regrowth, by agricultural fields, or by dry shrubland. Surface water features of note are not evident in the immediate vicinity of the sites, except for a marsh bordering TARG. All work at TARG and at the other sites would remain inside developed facility grounds.

Evaluation of Potential Impacts to Environmental Resources

1. Historic and Cultural Resources

Potential for Significance: No

Explanation: A BPA archaeologist and historian determined the work at all sites warrants a No Potential to Cause Effects determination for cultural resources per CFR 800.3(a)(1). Thus, no consultations with State Historical Preservation Offices or Tribal Historic Preservation Offices were initiated. The proposed work is within the fenced grounds at the radio stations and substations. The facilities were either built after BPA's period of significance as defined by the Multiple Property Document (BPA submission to the National Register of Historic Places [NRHP]) or have been determined not eligible for listing with the NRHP.

2. Geology and Soils

Potential for Significance: No

Explanation: All ground disturbance would be mainly 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. Excavation would be through the compacted fill material installed during the sites' initial construction or previous upgrade projects. There would also be a monopole installed to 10-foot-depth in the CACR yard. Soils or rock encountered below the engineered fill layer would be used to backfill the hole or would be contained with Best Management Practices (BMPs) to eliminate loss and would be prepared for proper disposal.

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 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 for 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 grizzly bear. Keeping foods and food waste in bear-resistant containers limits the potential for human-bear conflicts. With these measures followed, the project would have no effect on ESA-listed species.

Noise from construction work could disturb breeding birds within the soundshed of the tower and building work. At BEAR, golden eagles – protected by the Bald and Golden Eagle Act – are known to breed within one mile of the site and noise-producing outdoor work may not occur before September 1, 2023. At PATS, where golden eagles have potential to occur but are not verified within the standard disturbance threshold of 0.5 mile, work is scheduled to take place near the end of the species' breeding season when disturbances would tend to be less critical. Also, the two-mile buffer's edge of the nearest previous occurrence is about one mile from the station. Outdoor work at GARR would be limited to the ground level, and to manual excavation and some light power tool work to upgrade grounding connections. While in the vicinity of golden eagles' nests, the GARR work would be comparable to common maintenance work on the exterior of structures in an operating 500-kilovolt substation. At CACR, the station lies just outside the protective two-mile buffer to previously recorded leks (communal breeding areas) of Tier 2 Idaho State Species of Greatest Conservation Need, Columbian sharp-tailed grouse. Work on the tower would occur after active breeding and fledging.

Where other birds protected by the Migratory Bird Treaty Act or those protected by the various states where the project would take place could be affected by visual or auditory disturbances with tower work, the work would occur in mid-August to mid-September after the vast majority of breeding seasons end.

Notes:

- For work at all sites, keep food and food waste in Interagency Grizzly Bear Committee (IGBC)-certified bear-resistant containers or similarly rated containment that mitigates attractants.
- At PATS, begin outdoor work no sooner than August 18, 2023, which is 13 days before the end of the golden eagle breeding season.
- At BEAR, do not perform noise-producing work outside until after the golden eagle breeding season ends on August 31, 2023.
- Begin outdoor work at CACR no sooner than September 6, 2023, outside of the Columbian sharp-tailed grouse 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 none because sites are level and BMPs would be used to cover and control excavated soil on-site, limiting soil loss. None of the facilities are in a floodplain; however, TARG is directly adjacent to a large marsh. Execution of all applicable BMPs would prevent movement offsite of excavated material.

6. Wetlands

Potential for Significance: No

Explanation: Work would take place within existing graveled yards with no potential to affect wetlands. At TARG, all applicable BMPs would be incorporated during outdoor work to prevent material runoff to the marsh.

7. Groundwater and Aquifers

Potential for Significance: No

Explanation: Ground disturbance at the majority of facilities would be minor and would not reach below the grounding mat at around 18-30 inches below ground surface. The excavation at CACR for the new monopole would be implemented with all applicable BMPs for isolating any potential pollutants in the event groundwater is encountered.

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. There would be no effects on land use, and the sites are not in specially-designated areas.

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. In addition, the new monopole at CACR would be approximately the same height as existing fiber-optic line support poles in the yard, and surrounding transmission line poles.

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 with Conditions

Explanation: Exposure to asbestos or lead could occur during the described work. Apply BPA-approved mitigation measures when cutting/drilling through potentially lead- or asbestos-containing materials.

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.

A Pollution Abatement Clearance (PAC) would be completed for any disturbed yard material needing disposal off-site.

Notes:

- If asbestos or lead is anticipated at any one site, have present a current Class III Competent Person-certified worker to ensure safe operations.
- Workers shall follow BPA Work Standards and the Safety and Health Program Handbook for working with hazardous building materials.
- Pack and ship old batteries 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: 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: N/A

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: A courtesy notice of the work at PATS has been delivered per previous agreements with USFS. The other sites are on BPA fee-owned land and would require no outside coordination.

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 July 5, 2023
Michael J. O'Connell Date
Environmental Protection Specialist