

DOE-ID NEPA CX DETERMINATION

Idaho National Laboratory

SECTION A. Project Title: Auxiliary Reactor Area (ARA)-632 Integrated Satellite Backhaul Network (ISBN) 3-Phase Power Upgrade

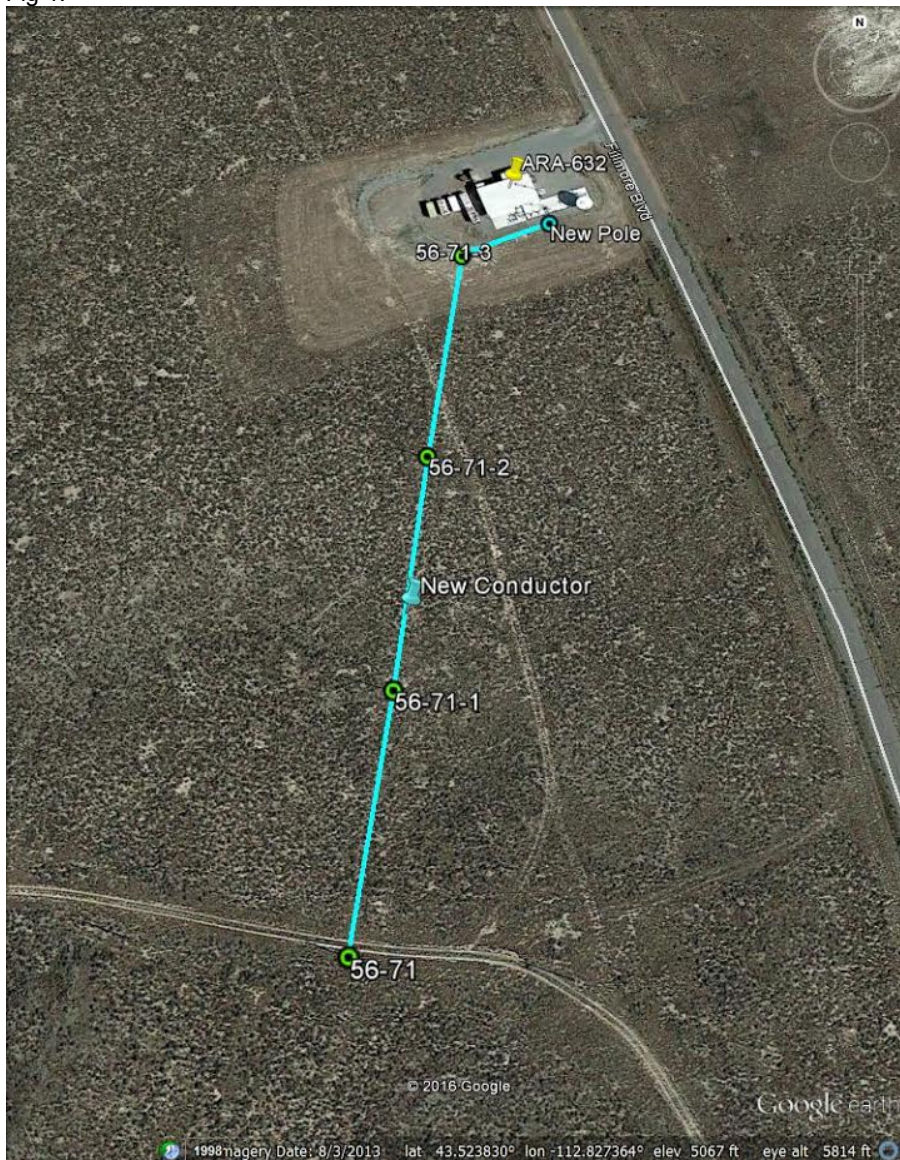
SECTION B. Project Description and Purpose:

The National and Homeland Security (N&HS) Wireless Test Bed (WTB) organization occupies the Fillmore Test Facility, building ARA-632, and performs testing using the Integrated Satellite Backhaul Network (ISBN) system. The ISBN serves as the ground station control hub for the larger ISBN network used by WTB customers. Currently, ARA-632 is supplied with only single phase power. The ISBN system requires commercially available 3-phase power in order to operate without the use of a portable generator.

The proposed action would provide the ISBN with 3-phase power. The upgrade would install a phase converter system near the ISBN structure. This work entails tapping the load-side of an Alternating Transfer Switch and routing 2-inch conduit with 3/#4/0 wire beneath ARA-632 and onto the north edge of the concrete pad to the north of the ISBN structure. To support the phase conversion, a 200A 1Ø heavy duty disconnect, a Buck-transformer (240V-208V, 1Ø, 37.5kVA), an ADX-60 outdoor phase converter, and a distribution panel (208Y/120V, 3Ø, 24-Ckt, 10kAIC, with 100A main breaker) would be installed on the north side of the ISBN structure. Branch circuits from the distribution panel would be routed to the connection box to power two-5HP motors and two-7.5kW de-icing circuits mounted on the ISBN system. The Genset plug, receptacle, and connections would be removed from the ISBN system.

A potential future upgrade would use Critical Infrastructure Test Range Complex (CITRC) Circuit 56 power line to negate the need for a portable 3-Phase generator. In this upgrade, new conductors would be installed on existing poles as shown in Fig 1. One 50-foot power pole would need to be installed immediately adjacent to the Fillmore Facility, including anchor back-guy hardware, cross arms, braces, dead end insulators, and other miscellaneous hardware. Power Management would provide three (3) 15kva pole mount transformers for the new services. Installation would be complete by 1 August 2016.

Fig 1.



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SECTION C. Environmental Aspects or Potential Sources of Impact:

Air Emissions

Air emissions from mobile sources, such as bucket trucks, are exempt. This work has the potential to generate fugitive dust.

Disturbing Cultural or Biological Resources

Installation of new overhead lines on existing poles has the potential to damage vegetation and impact cultural resources. A cultural resources review and biological resources review, including a breeding bird survey, must be performed prior to initiating work. Recommendations made through these reviews must be implemented.

This work may destroy sagebrush. A pre-work and post-work survey will be required to document the amount of sagebrush destroyed (if any). The project will fund sagebrush restoration equal to the acreage destroyed.

Generating and Managing Waste

Industrial waste such as common trash and scrap metal may be generated. Scrap metal will be recycled to the extent practicable.

Using, Reusing, and Conserving Natural Resources

The purpose of this work is to install commercial power which will save fuel and eliminate air emissions from use of a mobile power source. All applicable waste would be diverted from disposal in the landfill when possible.

SECTION F. Determine Recommended Level of Environmental Review, Identify Reference(s), and State Justification: Identify the applicable categorical exclusion from 10 Code of Federal Regulation (CFR) 1021, Appendix B, give the appropriate justification, and the approval date.

For Categorical Exclusions (CXs), the proposed action must not: (1) threaten a violation of applicable statutory, regulatory, or permit requirements for environmental, safety, and health, or similar requirements of Department of Energy (DOE) or Executive Orders; (2) require siting and construction or major expansion of waste storage, disposal, recovery, or treatment or facilities; (3) disturb hazardous substances, pollutants, contaminants, or Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)-excluded petroleum and natural gas products that pre-exist in the environment such that there would be uncontrolled or unpermitted releases; (4) have the potential to cause significant impacts on environmentally sensitive resources (see 10 CFR 1021). In addition, no extraordinary circumstances related to the proposal exist that would affect the significance of the action. In addition, the action is not "connected" to other action actions (40 CFR 1508.25(a)(1)) and is not related to other actions with individually insignificant but cumulatively significant impacts (40 CFR 1608.27(b)(7)).

References: National Environmental Policy Act (NEPA) Implementing Procedures, Final Rule, 10 CFR 1021, Appendix B to Subpart D, Categorical Exclusion B1.31 "Installation or relocation of machinery and equipment."

Justification: The proposed activities are consistent with CX B1.31 "Installation or relocation and operation of machinery and equipment (including, but not limited to, laboratory equipment, electronic hardware, manufacturing machinery, maintenance equipment, and health and safety equipment), provided that uses of the installed or relocated items are consistent with the general missions of the receiving structure. Covered actions include modifications to an existing building, within or contiguous to a previously disturbed or developed area, that are necessary for equipment installation and relocation. Such modifications would not appreciably increase the footprint or height of the existing building or have the potential to cause significant changes to the type and magnitude of environmental impacts."

Is the project funded by the American Recovery and Reinvestment Act of 2009 (Recovery Act) Yes No

Approved by Jack Depperschmidt, DOE-ID NEPA Compliance Officer on: 5/19/2016