

DOE-ID NEPA CX DETERMINATION

Idaho National Laboratory

SECTION A. Project Title: CFA-609 Wireless Test Bed Power Isolation

SECTION B. Project Description and Purpose:

Revision 1:

The purpose of this revision is to add a larger generator than proposed in the original EC. The original 25KW genset previously proposed for installation was not of sufficient size, so a 50KW, 60 Hz, emergency diesel genset will be installed instead. The installation of the new generator would begin in the summer of 2017.

Original Scope:

Idaho National Laboratory (INL) Communications Department equipment and Wireless Test Bed (WTB) equipment are fed from the same electrical panel located in Room 200 at building 609 at the Central Facilities Area (CFA). INL Communications Department electrical outages have a negative impact on the WTB program. The proposed action would provide the WTB with the ability to isolate electrical power to WTB equipment and support systems at CFA-609. The proposed action would separate power systems, add an emergency generator and uninterruptable power supply (UPS) capabilities, and provide capacity for future loads as required by the WTB program.

The proposed action would provide electrical power for current loads with at least 30% spare capacity for future loads. The diesel generator and Automatic Transfer Switch (ATS) system would detect power issues to start the diesel generator and automatically transfer to backup power. The system would transfer back automatically when commercial power is available. The UPS system would be rated to support current and future loads for 20-30 minutes. Power quality would be sufficient to support WTB loads with minimal downtime. The UPS would include Spill Proof, Maintenance Free Sealed Lead-acid batteries.

The WTB has the following two groups of equipment in CFA-609, Room 200:

1. Set of 8 rectifiers fed from panel DP2
2. Rack mounted power distribution units (PDUs) in the SE corner.

Based on available information, the rack mounted equipment is fed from circuit 2 and circuit 14 in panel ELP2 (via under floor receptacles).

The primary activities associated with the proposed action include the following:

- Reconfigure the rack PDUs to not be fed from panel ELP2
- Refeed 120V tower receptacles and place circuits on new DPA2 electrical panel
- Install a 25Kva emergency generator/automatic transfer/ 37.5 Kva transformer to provide power to WTB loads
- Install a manual transfer switch with portable generator connection for portable generator hook up in case of generator failure
- Install UPS to provide 20-30 minutes of back-up power while transitioning from commercial to diesel power
- Install 120V outdoor rated convenience receptacles along the exterior of the CF-609 south wall
- Feed required support equipment from panels with diesel generator backup.

An outdoor generator would be installed to provide emergency backup power. The proposed location is near the electrical room in CFA-609. Only generator installation would have an impact at the site location. All other modifications would reconfigure or replace existing equipment and components. Asphalt and unsuitable backfill material would be removed and replaced for installation of protective bollards and a concrete slab for housing the generator, ATS, and manual transfer switch (MTS).

The halon control panel is no longer in use and would be removed during the demolition process; halon-containing bottles are no longer in place. The fire annunciator panel is powered from LP2, and in order to remain functional during a power event this panel would be re-fed from a panel backed-up by a diesel generator. In order to obtain the spare capacity for the current DP2 electrical panel, conduit and wire would be removed and replaced with a new set of components.

This work is expected to begin in June 2016 and cost about \$125K.

SECTION C. Environmental Aspects or Potential Sources of Impact:

Air Emissions

Construction activities have the potential to generate fugitive dust. Project personnel must control fugitive dust and note the date, time, methods employed, and materials employed to control fugitive dust in project files. The emergency diesel generator will require a revised APAD prior to use.

Generating and Managing Waste

Industrial construction and demolition waste and small amounts of hazardous waste may be generated. All Solid Waste will be managed by WGS.

Releasing Contaminants

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Chemical use has a potential for small air emissions and spills.

Using, Reusing, and Conserving Natural Resources

All applicable waste will be diverted from disposal in the landfill when possible. Project personnel will use every opportunity to recycle, reuse, and recover materials and divert waste from the landfill when possible.

SECTION D. 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: 10 CFR 1021, Appendix B to Subpart D, B1.31 "Installation or relocation of machinery and equipment."

Justification: The proposed action is consistent with categorical exclusion 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 the 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 Jason Sturm, DOE-ID NEPA Compliance Officer on: 7/11/2017