DOE-ID NEPA CX DETERMINATION
Idaho National Laboratory

CX Posting No.: DOE-ID-INL-16-110

SECTION A. Project Title: Central Facilities Area (CFA) 12.5-kV Switchgear Reconfiguration

SECTION B. Project Description and Purpose:

The Central Facilities Area (CFA) 12.5 kV switchgear located in the Scoville substation at Idaho National Laboratory (INL) was built using old standards and has safety issues due to low-to-ground exposure. The switchgear consists of overhead bus, breakers, switches and instrument transformers that are needed to feed the 12.5 kV distribution system. These components need to be replaced with new equipment that has the capability to easily ground individual phases for maintenance and has adequate clearance around the equipment to safely perform maintenance activities.

Most overhead bus and support structures would be removed and replaced with new equipment housed in a pre-fabricated weather proof enclosure. A cable vault would be required below the enclosure to allow for cable routing. The new 12.5 kV switchgear would be arc-resistant metal-clad and constructed to provide protection from arc flash energy. The switchgear would have a 1200 ampere bus rating in a main-tie-main configuration. The circuit breakers would be draw-out vacuum type with direct roll-in capability. Each circuit breaker would have protective relay devices 51, 51G, 50 and 50G. Differential protective relay device 87 would be provided. Status and control of the circuit breakers and relays would interface with the supervisory control and data acquisition (SCADA) system.

Estimated Start Date: October 2016
Estimated End Date: October 2017
Approximate Cost: $2,380,000

SECTION C. Environmental Aspects or Potential Sources of Impact:

Air Emissions

Fugitive dust may be generated during excavation activities for duct banks and the foundation for the switchgear enclosure.

Asbestos containing material (ACM) may need to be disturbed during the project. Amounts of ACM are expected to be much less than threshold quantities that require a 10-day notification.

Typical construction chemicals such as lubricants, fuels, paints, adhesives, cleaners, etc., will be used during the project. Limited air emissions may result from use of these chemicals and spills could potentially occur.

Generating and Managing Waste

Typical non-hazardous construction waste such as concrete, scrap wire, conduit, cable, fence, packaging material, Resource Conservation and Recovery Act (RCRA)-empty chemical containers, etc., has the potential to be generated during the project. Uncontaminated scrap metal would be sent to excess for recycle as appropriate.

There is a potential for encountering polychlorinated biphenyl (PCB)-contaminated concrete, soils, cable, conduit, wire, etc., which would result in generation of PCB waste.

Asbestos containing waste material may be generated during the project. This waste will be packaged according to regulatory requirements and will most likely be disposed at the CFA asbestos landfill.

Releasing Contaminants

PCB contaminated soils, concrete, conduit, and other equipment have the potential for being discovered during the project. Project personnel will evaluate old electrical equipment and surrounding areas for the possibility of PCB's.

Using, Reusing, and Conserving Natural Resources

Uncontaminated scrap conduit, wire, and cable will be recycled as appropriate.

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, B2.5 "Facility safety and environmental improvements"

Justification: Project activities are consistent with 10 CFR 1021, Appendix B, B2.5 "Safety and environmental improvements of a facility (including, but not limited to, replacement and upgrade of facility components) that do not result in a significant change in the expected useful life, design capacity, or function of the facility and during which operations may be suspended and then resumed. Improvements include, but are not limited to, replacement/upgrade of control valves, in-core monitoring devices, facility air filtration systems, or substation transformers or capacitors; addition of structural bracing to meet earthquake standards and/or sustain high wind loading; and replacement of aboveground and belowground tanks and related piping, provided that there is no evidence of leakage, based on testing in accordance with applicable requirements (such as 40 CFR part 265, "Interim Status Standards for Owners and Operators Hazardous Waste Treatment, Storage, and Disposal Facilities" and 40 CFR part 280, "Technical Standards and Corrective Action Requirements for Owners and Operators of Underground Storage Tanks"). These actions do not include rebuilding or modifying substantial portions of a facility (such as replacing a reactor vessel)."

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: 10/5/2016