

DOE-ID NEPA CX DETERMINATION

Idaho National Laboratory

SECTION A. Project Title: Replacement of Control Panel 670-E-80 (Outer Shim and Safety Rod Drive Motor Control Centers)

SECTION B. Project Description:

The 670-E-80 Motor Control Center (MCC) in the Advanced Test Reactor (ATR [Test Reactor Area (TRA)-670]) was installed in 1962 and provides power to the eight outer shim drive motors, the six safety rod drive motors, and the 24 neck shim drives, and it also houses two fission chamber drives. This MCC provides insert and withdraw control interfaces to the outer shim drive motors and withdraw interfaces to the safety rod drive motors. The safety rod system is safety related and rapidly terminates the fission process and keeps the reactor subcritical as required. The outer shim control cylinder (OSCC) system shifts neutron flux, compensates for fuel burnup, and provides non safety-related shutdown capability. The MCC is beyond design life and components are very difficult to find or, in some cases, not available. Replacement of the 670-E-80 MCC is needed to continue reliable operation of the ATR.

The proposed action would replace the safety related control panel 670-E-80 and all associated components, including relays. The 15 KVA transformer, automatic transfer switches (ATS), and the existing terminals with finger safe-type terminal blocks would be replaced. The scope of the action is to replace the front control cabinet portion of the MCC and leave the back 'pass-through' section as is.

All drive controls are hardwired relay logic. The drives' power input is 120/208 VAC through a 15 KVA step down transformer (480 V to 120/208 V) with a diesel/commercial power feed. The neck shims also have backup power for the "insert" function provided by a battery backed supply. The motors are three phase AC motors.

Project Start Date: August 2015

Project End Date: April 2016

Project Cost: Approximately \$500,000

SECTION C. Environmental Aspects or Potential Sources of Impact:

Air Emissions – Emissions typical of cutting/grinding/welding are expected. The emissions from this activity are not considered construction of a new stationary emission source.

There is a potential for disturbing regulated asbestos containing material (RACM). All asbestos work must be conducted by properly trained personnel using appropriate abatement methods. Quantities of asbestos to be disturbed will be communicated to the Construction Environmental Support and Services (ES&S) representative in order to file the Asbestos Removal Notification Form (450.04). Asbestos work will not take place until the project has received approval from the Asbestos National Emission Standards for Hazardous Air Pollutants (NESHAPs) Technical Point of Contact (TPOC).

Disturbing Cultural or Biological Resources - TRA-670 is eligible for nomination to the National Register of Historic Places. The activities described in the project description are exempted from cultural resource review ("Idaho National Laboratory [INL] Cultural Resource Management Plan" Table 2, exemption 2 [Department of Energy Idaho Operations (DOE/ID)-10997 rev. 5]). Therefore, the project could proceed as described without further cultural resource review.

Generating and Managing Waste - All waste generated from this activity will be managed in accordance with laboratory procedures. Pollution prevention/waste minimization will be implemented where economically practicable to reduce the volume and/or toxicity of waste generated. All waste generated will be transferred to Waste Generator Services (WGS) for appropriate disposition. All waste generated from these activities will have an identified disposition path prior to it being generated.

There is the potential for possible disturbance of suspect polychlorinated biphenyls (PCBs). Examples include oil-buffers in breakers or electrical disconnects and small capacitors. If such equipment is found in the MCC, it must be removed and managed as PCB waste.

If the MCC is painted with PCB paint, it cannot be excessed or recycled and must be disposed.

Releasing Contaminants – All chemicals typically used in construction/maintenance, if used, will be managed in accordance with laboratory procedures. There is the potential for possible disturbance of suspect polychlorinated biphenyls (PCBs). Approved work controls will be in place to ensure that no releases occur during project activities.

Using, Reusing, and Conserving Natural Resources - All materials would be reused and/or recycled where economically practicable. All applicable waste would be diverted from disposal in the landfill where conditions allow. The project would practice sustainable acquisition, as appropriate and practicable, by procuring construction materials that are energy efficient, water efficient, are bio-based in content, environmentally preferable, non-ozone depleting, have recycled content, or are non-toxic or less-toxic alternatives (see <https://sftool.gov/green-products/0?agency=7>).

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SECTION D. Determine the Recommended Level of Environmental Review (or Documentation) and Reference(s): 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 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 1020 Appendix B to Subpart D, Categorical Exclusion B2.2 "Building and equipment instrumentation"

Justification: Project activities in this Environmental Checklist (EC) are consistent with 10 CFR 1021 Appendix D to Subpart D, Categorical Exclusion B2.2, "Installation of, or improvements to, building and equipment instrumentation (including, but not limited to, remote control panels, remote monitoring capability, alarm and surveillance systems, control systems to provide automatic shutdown, fire detection and protection systems, water consumption monitors and flow control systems, announcement and emergency warning systems, criticality and radiation monitors and alarms, and safeguards and security equipment."

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: 3/2/2015