

DOE-ID NEPA CX DETERMINATION

Idaho National Laboratory

SECTION A. Project Title: Advanced Test Reactor (ATR) Near Term Remote Monitoring and Management Project

SECTION B. Project Description:

This project provides for the capability to monitor reactor conditions and to take mitigative actions from two locations outside of the ATR confinement if the reactor control room must be evacuated. The two selected locations are the Process Control Room (PCR) in room 121 of the ATR building Test Reactor Area (TRA)-670 and in rooms 114/115 of the Emergency Command Center (ECC) building TRA-680. The capabilities identified necessary for these two locations are a Console Display System (CDS) operator workstation, a process Distributed Control System (DCS) operator workstation, selected vessel level and primary coolant pressure instrumentation readings from panel P-11, the Vessel Vent System (VVS) actuation switches, the In-Vessel Post Accident Monitoring System (IVPAMS), and the Emergency Firewater Injection System (EFIS) actuation switches.

Some of these capabilities are already present in the PCR. These include the CDS and DCS operator workstations, and the VVS actuation switches. So the P-11 instrumentation readings and the EFIS actuation switches must be added to this room. Utilization of existing conduit and wire ways will be considered to minimize waste. Installation of new conduit, wiring and cabling in support of the new equipment is anticipated and will require new wall and floor penetrations in building TRA-670. New cabinets will require wall and floor anchors with possible removal of asbestos floor tiles in room 121. This will produce wastes associated with demolition and installation within building TRA-670. None of the waste is anticipated to be radioactive.

Subcontracted work scope may include the on-site use of mobile generators, welders and compressors during construction. Equipment will be required to meet the visible emissions/opacity requirements or will be shut down and either repaired or removed from the Idaho National Laboratory (INL). These non-road sources will be located at the project for less than a year.

None of the required capabilities are currently available at the ECC. So the project will require running signal and communications wires and cables from TRA-670 to TRA-680 through concrete protected underground duct bank which will require excavation activities. Installation of new conduit, wiring and cabling in support of the new equipment will be required in both TRA-670 and TRA-680. New cabinets will require wall and floor anchors with possible removal of asbestos floor tiles in rooms 114/115 at TRA-680. Also, the wall between room 114 and 115 in TRA-680 will be removed with possible modification to the associated firewater, electrical, and ventilation systems. These too may generate non-radioactive wastes.

Projected Start Date: April 2012
Projected End Date: September 2014
Estimated Cost: \$4,530,000

Escalation and management reserve are included in the cost estimate.

Procurement activities are scheduled to begin fiscal year 2013. Equipment installation could begin as early as spring 2013.

SECTION C. Environmental Aspects or Potential Sources of Impact:

Describe Environmental Aspects:

Air Emissions - There is a potential for disturbing asbestos containing materials. Controls will be in place to ensure asbestos materials are not released. All asbestos work will be conducted in accordance with the applicable sections of Laboratory-wide Procedure (LWP)-8000, RD-8000 and the Subcontractor Requirements Manual. If the scope of work specified in the work package identifies an amount of regulated asbestos-containing material (RACM) to be removed that equals or exceeds the threshold quantity (260 linear feet on pipes / 160 square feet on other facility components / 35 cubic feet on facility components where the length or area could not be measured previously) specified in 40 Code of Federal Regulation (CFR) 61.145, contact the Asbestos Coordinator and provide the necessary information for completion of a 10-Day Demolition or Renovation Notification. Any chemicals used during construction will be managed according to applicable procedure as outlined in LWP-8000, RD-8000, and the Subcontractor Requirements Manual. Construction phase - Excavation activities for the duct bank may generate fugitive dust emissions. Reasonable precautions (water, dust suppressant chemicals, etc.) will be taken by the subcontractor to prevent dust from becoming airborne during construction. If control methods are needed, the method used must be documented in daily logbooks for compliance with the INL Tier I Air Permit. Mobile/portable combustion engines not subject to air permitting for boring/pulling may be used during this activity.

Subcontracted work scope may include the on-site use of mobile generators, welders and compressors during construction. Equipment will be required to meet the visible emissions/opacity requirements or will be shut down and either repaired or removed from the INL. These non-road sources will be located at the project for less than a year.

Disturbing Cultural Resource/Biological Resources - TRA-670 is eligible for nomination to the National Register of Historic Places. Without proper mitigation, removal of original features may adversely impact this historic property. Prior to beginning work, obtain cultural/historical resource review by contacting Julie Braun Williams (526-0926). Approval must be demonstrated by written communication from these organizations prior to beginning work, and any instructions contained in the review must be followed.

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If objects of potential archaeological or historical significance (e.g., arrowheads, flints, bones, etc.) are encountered during excavation activities, the project would discontinue disturbance in the area and contact Environmental Support and Services [Jim Graham (6-7740) or Jenifer Nordstrom (6-8119)] and/or the Cultural Resources Office [Brenda Pace (6-0916), Hollie Gilbert (6-2189), or Julie Williams (6-0926)].

Generation and Management of Waste – The project will generate construction and industrial waste. All waste will be managed in accordance with company procedures and established waste streams to ensure compliance with Department of Energy Order (DOE O) 435.1. All waste will be dispositioned through Waste Generator Services (WGS). See Section F pertaining to the management and/or handling of the following: suspect Polychlorinated Biphenyl (PCB)-containing material, asbestos, lead and other waste.

Releasing Contaminants - All chemicals utilized during this activity will be managed in accordance with laboratory procedures. There may be concern of mercury in some models of old electrical devices. Ensure proper instructions are incorporated into the planning of applicable activities to properly manage mercury.

Using, Reusing, and Conserving Natural Resources - All materials will be reused and recycled where economically practicable and as accepted by the customer. All applicable waste will be diverted from disposal in the landfill where conditions allow. New equipment will meet either the Energy Star or Significant New Alternatives Policy (SNAP) requirements as appropriate (see <http://www.sftool.gov/GreenProcurement/ProductCategory/14>). In addition, the project will 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.

SECTION D. Determine the Recommended Level of Environmental Review (or Documentation) and Reference(s): Identify the applicable categorical exclusion from 10 CFR 1021, Appendix B, give the appropriate justification 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 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 which would affect the significance of the action, and the action is not "connected" nor "related" (40 CFR 1508.25(a)(1) and (2), respectively) to other actions with potentially or cumulatively significant impacts.

References: 10 CFR 1021, Appendix B to Subpart D item B2.2 "Building and equipment instrumentation."

Justification: The proposed action is consistent with 10 CFR 1021, Appendix B to Subpart D, item B2.2 categorical exclusion, "Building and equipment instrumentation" that covers "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: 2/21/2013