

DOE-ID NEPA CX DETERMINATION
IDAHO NATIONAL LABORATORY

SECTION A. Project Title: ATR Primary Heat Exchanger Seismic Capacity Project

SECTION B. Project Description:

Modification and upgrade of the seismic support structures for the five primary heat exchangers within ATR (670-M-2, 3, 4, 5 and 85) is needed to meet new PC-4 seismic criteria. The scope of the design is to replace the upper tie-rod assemblies and wall mounted anchor plates (the existing belly band on each heat exchanger will remain unchanged). The existing concrete structures that support the lower portion of each heat exchanger will be externally reinforced with new steel supports anchored and welded in place (the existing concrete support structures will remain unchanged).

Before this seismic support modification can occur, a piping modification needs to be performed on the primary heat exchanger secondary drains to move them away from the south concrete column supports of each heat exchanger (except M-85 which has a different drain piping configuration). The piping sizes for the secondary drains is both 4 inch and 2 inch. The existing isolation valves on the secondary drain lines will be replaced with new valves as part of this effort.

All metal surfaces on the primary heat exchangers and associated supports as well as the secondary drains are painted. It is reasonable to assume that this paint may contain lead and/or PCB's.

Projected start date: November 2011

Projected end date: July 2012

Estimated cost: 3 million

SECTION C. Environmental Aspects / Potential Sources of Impact:

Cultural/Historical Resource Disturbance: 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. See Sections E and F for project conditions and instructions.

Generating and Managing Waste: Removal of existing ATR Primary Heat Exchanger tie rods, wall plates and concrete anchors will generate structural steel scrap waste. The new concrete anchor holes will result in concrete dust and chips. Routine radiological waste from the installation, i.e., anti-C's, rags, bags, etc., will also be generated. See Section F for project instructions.

Releasing Contaminants: All chemicals will be managed in accordance with company procedure. This work will be performed in the heat exchanger vault, which has the potential to be radiologically contaminated. There is also a possibility for PCB contamination. See Section F for project instructions.

SECTION D. Recommended Level of Environmental Review (or Documentation) and Reference(s): Identify the level applicable categorical exclusion from 10 CFR 1021, Appendix B, give the appropriate justification, and the approval date.

Note: 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, including requirements of DOE orders; 2) require siting and construction or major expansion of waste storage, disposal, recovery, or treatment 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) adversely affect environmentally sensitive resources. 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: National Environmental Policy Act (NEPA) Implementing Procedure, Final Rule, " 10 CFR 1020 Appendix B to Subpart D, Categorical Exclusion B2.5 "Safety and environmental improvements of a facility, including replacement and upgrade of facility components," effective 1996.

Justification: This activity is required to bring the facility up to current seismic design standards. Project activities in this EC are consistent with 10 CFR 1021 Appendix B to Subpart D, Categorical Exclusion B2.5 "Safety and environmental improvements of a facility, including 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 may 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;..."

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 9/6/2011