

**DOE-ID NEPA CX DETERMINATION
IDAHO NATIONAL LABORATORY**

SECTION A. Project Title: ATR Canal AFIP-7 Channel Gap Probe Installation Project

SECTION B. Project Description:

The location for the proposed project is the Advanced Test Reactor (ATR) at the ATR Complex, located at the Idaho National Laboratory (INL).

This project involves the following primary efforts:

- Installation of the channel gap probe instrument into the East end of the ATR canal
 - o Bolting together two pieces of the assembly
 - o Lifting the channel gap probe into the canal
 - o Termination of cables
- Fabrication and installation of a new skimmer bracket – the skimmer will be moved to a location on the North side of the parapet from its current location on the far East side of the parapet
 - o Metal machining and welding
 - o Physical removal and reconfiguration of skimmer bracket in canal area
- Fabrication and installation of a bubble trap to be mounted on the side of the parapet and used to contain water surface disturbances caused by rising bubbles from the canal level indication system
 - o Metal machining and welding
 - o Physical installation in the canal area

The installation of the channel gap probe located at TRA-670 is being performed to facilitate measurement of flow channel gaps in experimental fuel assemblies, namely AFIP-7 and the Full Element. Data obtained from the inspections is necessary to establish the safety basis for converting test and research reactors to Low Enriched Uranium (LEU) fuel types.

The channel gap probe will first be used to inspect channel gaps of the AFIP-7 fuel assembly before its insertion into the reactor in the 149B cycle. The East end canal skimmer and associated hose are in the way of the channel gap probe installation and will be moved to the North side of the canal to make room for the channel gap probe. The North side canal parapet has a metal walkway on top of it that prevents the use of the current bracket used to mount the skimmer to the parapet. Consequently, a new skimmer bracket will be fabricated that can be installed in the available space underneath the parapet walkway. The bubble trap will be used to suppress water surface disturbances on the East end of the canal to make it easier to perform work associated with the channel probe. The skimmer bracket and bubble trap fabrication is scheduled to begin on April 18th, 2011 with installation on April 25th, 2011. The installation of the channel gap probe is scheduled to occur on May 3rd, 2011.

It is anticipated that metal filings, spent cutting fluid, and welding wastes will be generated as part of this job.

SECTION C. Environmental Aspects / Potential Sources of Impact:

Generating and Managing Waste - Small amounts of hazardous and industrial waste (cutting fluid, metal filings, etc.) may be generated during fabrication activities and will be managed in accordance with company procedures. All waste generated will be transferred to Waste Generator Services (WGS) for appropriate disposition.

Releasing Contaminants - There is the potential for release of small amounts of contaminants generated during fabrication activities. Any release of these contaminants will be managed in accordance with company procedures.

Using, Reusing, and Conserving Natural Resources - Pollution prevention practices will be implemented where practicable to reduce the volume of waste.

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

Note: For projects Categorical Exclusions (CX) 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: 10 CFR, Part 1021, Appendix B to Subpart D, B3.6

Justification: Equipment fabrication; installation of the channel gap probes and supporting equipment at the ATR canal; and inspections of the fuel assemblies are appropriately covered under CX category B3.6 "...modification, operation of facilities for small-scale research and development projects; and small-scale pilot projects ..." Data obtained from the inspections is necessary to establish the safety basis for converting test and research reactors to Low Enriched Uranium (LEU) fuel types.

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 4/19/2011