

DOE-ID NEPA CX DETERMINATION

Idaho National Laboratory

SECTION A. Project Title: Global Threat Reduction Initiative (GTRI) Irradiated Experiment Shipping Capability

SECTION B. Project Description:

The General Electric (GE) 2000 Model Cask is currently used to support the Global Threat Reduction Initiative (GTRI) irradiated experiment shipments from the Advanced Test Reactor (ATR) at Idaho National Laboratory's (INL) ATR Complex to the Hot Fuel Examination Facility (HFEF) at INL's Materials and Fuels Complex (MFC). However, due to changes in GE-Hitachi's business model, the continued availability of the GE Model 2000 cask is not guaranteed. Furthermore, the internal cavity of the GE Model 2000 cask is too short to support shipment of some larger GTRI experiments. The purpose of the proposed action is to develop and implement a process and equipment changes to allow qualification and use of the Battelle Energy Alliance, LLC (BEA) Research Reactor (BRR) cask for transferring GTRI irradiated experiments from the ATR canal to the HFEF Main Cell as an option to, or in place of, using the GE Model 2000 cask.

The proposed action involves designing and modifying existing hoisting and rigging equipment (i.e., GE 2000 spreader bar) at ATR to enable lifting the BRR cask and lowering it into the canal, and designing and fabricating prototype cask and experiment handling baskets to handle and hold irradiated experiments. The project also includes performing engineering analyses for supporting changes to facility safety basis documents and revising operating procedures to support dry runs and facility Management Self Assessments and Operational Readiness Reviews, as needed.

Engineering design and analyses and other planning and support activities would be performed at the Research and Education Campus in Idaho Falls. Fabrication of prototype casks may be performed off-Site by subcontractors or on-Site by craft personnel.

Projected Start and End Dates: October 1, 2013 - September 30, 2014

Approximate Project Costs: \$1.2M

SECTION C. Environmental Aspects or Potential Sources of Impact:

Air Emissions: These activities are not considered construction or modification of an emissions source. Small amounts of radioactive emissions may be generated during project activities. Material transfers within the ATR Canal are consistent with and typical of material transfers in the canal. These transfer activities are not considered construction or modification to an air emissions source, and therefore would not require preparation of an Air Permitting Applicability Determination (APAD).

There is the potential for disturbing asbestos containing material during modifications to Test Reactor Area (TRA)-670. Controls would be in place to ensure asbestos materials are not released. All asbestos work would be conducted in accordance with the applicable sections of Laboratory Wide Procedure (LWP)-8000. Some air emissions may also be generated during welding operations.

Disturbing Cultural or Biological Resources: TRA-670 is eligible for nomination to the National Register of Historic Places and removal of original features would adversely impact this historic property. To mitigate this impact, the project will ensure that photographs are taken and engineering drawings are archived depicting the original configuration and equipment. Contact Julie Braun Williams (526-0926) for further information.

Generating and Managing Waste: Fabrication of materials and installation have the potential to generate radioactive low-level waste (LLW), mixed LLW, hazardous waste, polychlorinated biphenyl (PCB) bulk product waste, and industrial waste. Pollution prevention will be incorporated wherever economically practical to reduce the volume of waste generated from this activity. All waste disposal activities will be coordinated through Waste Generator Services (WGS) to ensure proper characterization and disposal.

Releasing Contaminants: There is the potential for some internal structures to be covered in paint that contains PCBs and/or lead. There will be no cutting of any painted material/surface utilizing a cutting torch, grinder, or any other tool that would generate enough heat to cause the paint to burn. Any painted surface that is scheduled to be cut/welded, must have the paint removed in accordance with the National Association of Corrosion Engineers (NACE) standard. All work on surfaces or equipment that are suspected of being coated with paint that potentially contains PCBs and/or lead will be conducted in accordance with LWP-8000.

Using, Reusing, and Conserving Natural Resources: Electrical power will be required to operate equipment during activities and data collection. These activities are limited in duration. Equipment will be powered down when not in use. All applicable waste will be diverted from disposal in the landfill when possible. Project personnel will use every opportunity to recycle, reuse, and recover materials and divert waste from the landfill when possible. The project will use 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. 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>).

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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 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 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 B2.4 "Equipment qualification"

Justification: Project activities described in this EC are consistent with 10 CFR 1021, Appendix B to Subpart D, item B2.4 "Activities undertaken to (1) qualify equipment for use or improve systems reliability or (2) augment information on safety-related system components. These activities include, but are not limited to, transportation container qualification testing, crane and lift-gear certification or recertification testing, high efficiency particulate air filter testing and certification, stress tests (such as "burn-in" testing of electrical components and leak testing), and calibration of sensors or diagnostic 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: 9/4/2013