# DOE-ID NEPA CX DETERMINATION
# Idaho National Laboratory



CX Posting No.: DOE-ID-INL-21-001

**SECTION A. Project Title:** HFEF-5 and HFEF-14 Casks Stainless Steel Fabrication

**SECTION B. Project Description and Purpose:**

Idaho National Laboratory (INL) uses shielded containers, including the Hot Fuel Examination Facility (HFEF)-5 cask and HFEF-14 cask, to transport radioactive payloads within the Materials and Fuels Complex (MFC) MFC and to other on-INL destinations. The INL shielded containers are designed for use only on the INL site, not for in-commerce shipments, and are not licensed by U.S. Nuclear Regulatory Commission (NRC). The HFEF-14 cask is constructed mainly from carbon steel and lead and is dedicated to the INL Site cleanup contractor (Fluor Idaho, LLC) and is not available for other uses. The single HFEF-5 cask, constructed primarily from carbon steel, is required for waste management and research activities for multiple MFC facilities. INL needs additional casks to support ongoing laboratory operations and increase transport capacity. The proposed action designs and fabricates new HFEF-5 and HFEF-14 casks. INL proposes to construct the new HFEF-5 casks from stainless steel and the new HFEF-14 casks from stainless steel and lead.

Design, procurement, and fabrication activities will be controlled in accordance with the approved NQA-1a 2009 program. Fabrication includes the following tasks:

a. Procure materials and parts for cask fabrication

b .Fabricate the HFEF-5ss in accordance with approved design and fabrication requirements

c. Implement procurement and fabrication quality controls

d. Perform Factory Acceptance Testing (FAT) in accordance with approved FAT plan

e. Deliver cask to the INL.

**SECTION C. Environmental Aspects or Potential Sources of Impact:**

**Air Emissions**

Off-Site fabrication activities have the potential to generate fugitive emissions from welding and other fabrication activities.

**Discharging to Surface-, Storm-, or Ground Water**

N/A

**Disturbing Cultural or Biological Resources**

N/A

**Generating and Managing Waste**

Waste will be generated by the off-site subcontractor while fabricating the casks. The design and fabrication of the casks is expected to generate small amounts of common office trash, scrap metal and wipes/rags. The scrap metal shall be recycled to the extent practicable.

**Releasing Contaminants**

When chemicals are used during the project there is the potential for spills that could impact the environment (air, water, soil).

**Using, Reusing, and Conserving Natural Resources**

All materials would be reused and recycled where economically practicable. Waste will be diverted from the landfill when possible.

**SECTION D. Determine Recommended Level of Environmental Review, Identify Reference(s), and State Justification:** 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 Department of Energy (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:** 10 CFR 1021, Appendix B to Subpart D. Items B1.24, "Property Transfers", and B2.4 "Equipment Qualification".

**Justification:**
The design and fabrication of the HFEF-5 and HFEF-14 casks is consistent with CX B1.24 "Transfer, lease, disposition, or acquisition of interests in personal property (including, but not limited to, equipment and materials) or real property (including, but not limited to, permanent structures and land), provided that under reasonably foreseeable uses (1) there would be no potential for release of substances at a level, or in a form, that could pose a threat to public health or the environment and (2) the covered actions would not have the potential to cause a significant change in impacts from before the transfer, lease, disposition, or acquisition of interests", and CX 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 Jason Anderson, DOE-ID NEPA Compliance Officer on: 03/04/2021