DOE-ID NEPA CX DETERMINATION
IDAHO NATIONAL LABORATORY

CX Posting No.: DOE-ID-ICP-15-004

SECTION A. Project Title: INTEC – CPP-603 Large Cask Adaptability

SECTION B. Project Description

DOE is responsible for the safe storage of Spent Nuclear Fuel (SNF) in its possession as well as obtaining data to verify the condition of SNF currently being stored in large storage casks at the INL Site. To meet this responsibility, DOE needs to open and examine the low-burnup SNF currently in long-term dry storage to verify the condition of the fuel and look for any degradation. DOE examined this fuel at the TAN Hot Cell in the 1980's and early 1990's. To obtain the necessary confirmatory data, DOE needs to examine the fuel in those casks again. However, the TAN Hot Cell has been demolished and a facility is needed with the capabilities to accommodate large storage casks. DOE is proposing to modify the CPP-603 Irradiated Fuel Storage Facility (IFSF) located at the Idaho Nuclear Technology and Engineering Center (INTEC) to accommodate these large casks.

Due to the larger physical size and weight of these casks, changes to the existing CPP-603 IFSF containment structure, transfer car, and overhead crane in the south corridor of building CPP-603 are needed to support this effort. Additionally, specialized tools will be fabricated and or procured to handle and open/close the casks, as well as necessary electrical modifications within CPP-603. The specific modifications to CPP-603 include:

- Evaluation of the facility structure and existing crane rails for installation of two new 75 Ton Tandem Cranes to work in tandem with the supporting spreader bar and pivoting yoke for handling the large casks.
- Procurement, detailed design and installation of two new 75 Ton Tandem Cranes and spreader beam for handling the large casks.
- Existing permanent containment structure (PCS) will be replaced with a suitable PCS unit with larger moveable roof and west wall section allowing large casks and spreader beam to access the existing transfer car area.
- Existing southwest truck door into the building will be increased in height by raising existing door opening to allow taller casks to be moved into the CPP-603.
- Existing ramp area adjacent to the southwest truck door will be back filled with gravel and an "at grade" concrete surface installed to increase flat floor space. NOTE: A shallow injection well was discovered south of CPP-603 when reviewing drawings associated with truck ramp area. This shallow injection well potentially received wastewater discharges from the truck ramp floor drains, which are currently plugged. The truck ramp area will be filled with gravel and a concrete surface installed to increase flat floor space for this project. This action will prevent future access to the plugged truck ramp floor drains.
- Modifications and additions to handle large casks will include adding a Transfer Car adapter for large cask handling, designing and fabrication or procurement of new cask handling tools and equipment to address large cask operations in the PCS and fuel cave within the IFSF.
- Modifications and additions to the CPP-603 electrical services to address new tandem cranes and other new power requirements to support operation on the casks.
- Design and building a temporary road from CPP-2707 to CPP-603 to allow transfer of large casks between locations.

SECTION C. Environmental Aspects / Potential Sources of Impact

1. Air Pollutants – Project activities, such as facility modifications and other activities that will impact radiologically contaminated systems may generate fugitive emissions containing radioactivity. These activities will be conducted using the appropriate controls. Other fugitive dust emissions may be generated from soil disturbance and operating equipment and tools. All fugitive emissions should be controlled using GDE 369 – Fugitive Dust Control.

Radionuclide Emissions – Radiological emissions to the environment, including those from point and diffuse sources, must be determined for demonstrating compliance with the NESHAP Standard [see 40 CFR 61.93(a)] and submitted for reporting in the INL NESHAP Annual Report per 40 CFR 61.94. If any fugitive radiological emissions are released, the performing organization Project Manager or Source Owner/Manager shall ensure that the calendar year emissions are determined and reported (via signed memorandum) to Environmental Programs by March 15 for the preceding year.

An Air Permitting Applicability Determination will be required prior to the cask opening demonstration.

2. Asbestos Emissions - Facility modifications could impact equipment and components with asbestos-containing material, such as pipe insulation, gaskets, flanges, walls, roofing, and flooring. Electronic Form 450.04 (Asbestos Removal Notification) must be submitted prior to any asbestos removal. However, if abatement of regulated asbestos containing material over the threshold quantities (160 square feet or 260 linear feet or 35 cubic feet) is planned for the entire project, a renovation/demolition notification to the Department of Environmental Quality is required at least 10 working days prior to any activity that would disturb asbestos material.

4. Chemical Use and Storage – Chemicals may include those used during fabrication (welding rods, primers, paints, sealants, etc.) and facility modifications to CPP-603. As applicable, project personnel will use non-hazardous chemical substitutes in place of hazardous chemicals as long as the non-hazardous substitutes meet the requirements/specifications of the project. Spill prevention/minimization measures will be employed during storage and chemical use. Affirmative Procurement (MCP-1185) will be used as guidance in procuring applicable chemicals and materials.

5. Contaminated Site Disturbance – A Notice of Soil Disturbance must be completed and approved prior to any soil disturbances within the perimeter fence at INTEC (MCP-3002). Soil disturbance work is being performed within SITE CPP-88.
6. Cultural/Historical Resource Disturbance – CPP-603 is eligible for listing on the National Register of Historic Places. The proposed action may have adverse impacts to the property. A historical review and survey to comply with the State Historic Preservation Office must be completed prior to any modifications.

7. Discharge to Wastewater Systems or Groundwater – The floor drains in the truck ramp area are inactive and currently do not receive any discharged wastewater. The floor drains discharged to a shallow injection well located south of CPP-603, but the floor drains have previously been plugged. The truck ramp will be filled with gravel and covered with a concrete surface. Per MCP-3480, Section 4.8.2, the CERCLA project has been notified of a potential Solid Waste Management Unit (SWMU) at INTEC (WAG-3). The shallow injection well/SWMU will be evaluated as a new site by following the Operable Unit 10-08 Remedial Design/Remedial Action Work Plan (DOE/ID-11418) and using form 435.36, “Federal Facility Agreement and Consent Order (FFA/CO) New Site Identification (NSI)”.

The abandonment of the shallow injection well is not part of the scope of work covered by this Environmental Checklist. If and when the new site for this SIW/SWMU exits the CERCLA process, a NEPA evaluation will be performed to address the abandonment of the SIW per IDAPA 37.03.03 requirements.

9. Hazardous/Mixed Waste Generation and Management – Hazardous, mixed, and/or universal waste may be generated from project activities. Hazardous, mixed, and/or universal waste disposal will be conducted at an appropriate licensed disposal facility and in accordance with the disposal facility's waste acceptance criteria (WAC) through Waste Generator Services. Waste Streams will be evaluated to determine if any waste materials are candidates for recycling or reuse as a means to achieve waste minimization.

10. Hazardous/Rad. Material or Waste Handling and Trans – All radioactive waste handling and transportation will be managed in accordance with DOE Order O 435.1, Change 1, "Radioactive Waste Management."

A Hazardous Waste Determination will be performed on all generated waste to determine the appropriate waste management practices.

11. Industrial Waste Generation and Management – During fabrication and modification activities, industrial waste such as packing materials, scrap metal, textile fabric, wiring, and other excess construction materials are likely to be generated. The waste stream will be evaluated and dispositioned by Waste Generator Services in accordance with MCP-1390.

12. Interaction with Wildlife/Habitat –If any bird nests with birds and/or eggs are discovered, cease work nearby, and notify the facility Project Environmental Lead and follow instructions in MCP-3480, Section 4.7.67. Contact the facility PEL (Taryl Huebner) if any wildlife is creating a nuisance situation, per MCP3480, Section 4.7.70.

13. Managing Surplus Property and Materials – Equipment and materials will be recycled or reused when practical.

14. PCB Contamination – PCBs may be encountered while performing the covered activities, such as applied coating and sealants (e.g., paints), gaskets, electric cabling, caulking and oils associated with small capacitors and electrical equipment manufactured prior to 1980. PCBs will be managed in accordance with MCP-3480, Sections 4.7 and 4.21 and PCB wastes will be managed in accordance with MCP-1390 and MCP3471.

15. Radioactive Materials Use and Storage – Fissile material is strictly controlled. Spent nuclear fuel movements will follow all applicable DOE Orders, company procedures, and applicable Safety Analysis documents.

16. Radioactive Waste Generation and Management –Project activities will generate various types of low-level radioactive waste. LLW may include contaminated piping and ducting, structural metal, asbestos, and other building materials. Incidental LLW may include personal protective equipment and consumables. The waste stream will be managed through Waste Generator Services and will be disposed and/or treated at a licensed off-site disposal facility.

18. Use, Reuse and Recycling of Resources – INL borrow sources may be used to provide backfill (soil and gravel). Backfill taken from INL borrow sources must be coordinated through the BEA Road and Grounds Manager and completion of form 450.AP01 is required.

SECTION D. Determine the 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.

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:

- B1.13, Construction/acquisition/relocation of onsite pathways, short onsite access roads/railroads,
- B1.31, Relocation/operation of machinery and equipment, and
- B3.6, Siting/construction/operation/decommissioning of facilities for bench-scale research, conventional laboratory operations, small-scale research and development and pilot projects.

Justification: The action as described in Section B is categorically excluded and meets the criteria described above (see Note).

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 October 26, 2015.