

DOE-ID NEPA CX DETERMINATION

Idaho National Laboratory

SECTION A. Project Title: Remote-Handled (RH)-Transuranic (TRU) Cell Outpack Modifications

SECTION B. Project Description:

The purpose of the proposed action is to simplify shipping of remote-handled transuranic (RH-TRU) waste from the Materials and Fuels Complex (MFC) at Idaho National Laboratory (INL) to the Waste Isolation Pilot Plant (WIPP). Therefore, modification to processes, as described in this environmental checklist, is needed.

Real-time radiography (RTR) must be conducted prior to shipping waste from INL to WIPP and is conducted at building Chemical Processing Plant (CPP)-659 at the Idaho Nuclear Technology and Engineering Center (INTEC) located at the INL Site. The majority of MFC's RH-TRU waste is currently stored in three custom-built stainless steel inner waste canisters stacked inside a stainless steel outer waste canister topped with a lead shield plug encased in steel. This configuration provides excellent protection for long-term storage in the ground but is expensive and prohibits RTR analysis at CPP-659. Current RTR capabilities require TRU waste to be packaged in 55-gallon drums and, as a result, the RH-TRU waste in the current configuration must be disassembled and repackaged.

In order to reduce the additional handling and associated activities, the proposed action is to perform facility and process modifications that would allow the loading of RH-TRU waste at the Fuel Conditioning Facility (FCF [building MFC-765]) and Hot Fuels Examination Facility (HFEF [building MFC-785]) hot cells into a 45-gallon drum or equivalent and then into a clean 55-gallon drum bagged to the hot cell cask port. The 55-gallon drum would reside on a fabricated cask cart adapter beneath the cask port. An adaptor ring would be installed on the bottom of the port to ensure tight fit and to prevent contamination. To minimize worker exposure while closing the drum lid, a shield plug would be fabricated and placed between the top of the 45-gallon drum or equivalent and the lid of the 55-gallon drum. In addition, a drum overpack would be fabricated to provide shielding for the 55-gallon drum. If subsequent analysis indicates that the carbon steel drum overpack is not providing adequate shielding, lead shot may be used in the overpack. Addition of the lead-shot, if needed, would occur off the INL. After adding waste and overpacking, the 55-gallon drum would then be loaded into an interim storage container by free air transfer and staged at the north fenced storage area south of the Radioactive Scrap and Waste Facility.

SECTION C. Environmental Aspects or Potential Sources of Impact:

Air Emissions: Emissions typical of welding are expected. The welding emissions from the proposed action are not considered construction of a new stationary emission source.

Disturbing Cultural or Biological Resources: FCF and HFEF are eligible for nomination to the National Register of Historic Places. The activities described in the project description are exempted from cultural resource review ("INL Cultural Resource Management Plan" Table 2, exemptions 6 and 8 [Department of Energy/Idaho Operations Office (DOE/ID)-10997 rev. 5]). Therefore, the project could proceed as described without further cultural resource review.

Generating and Managing Waste: Typical debris waste such as scrap metal may be generated. Hazardous waste is not anticipated. Waste will be containerized and turned over to Waste Generator Services (WGS) for disposal. All waste will be characterized and dispositioned at the direction of WGS.

Releasing Contaminants: All chemicals utilized by this activity will be managed in accordance with laboratory procedures.

Using, Reusing, and Conserving Natural Resources: All materials would be reused and/or recycled where economically practicable and as accepted by the customer. All applicable waste would be diverted from disposal in the landfill where conditions allow. In addition, the project would practice 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.

SECTION D. Determine the Recommended Level of Environmental Review (or Documentation) and Reference(s): 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 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, B6.6 Modification of facilities for storing, packaging, and repacking waste.

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Justification: Categorical exclusion applicable to "modification (excluding increases in capacity) of an existing structure used for storing, packaging, or repacking waste other than high-level radioactive waste or spent nuclear fuel, to handle the same class of waste as currently handled at that structure."

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: 12/4/2014