

SECTION A. Project Title: INTEC – Suspect RH-TRU (AMWTP)

SECTION B. Project Description

The proposed action involves transferring suspect remote-handled transuranic (RH-TRU) waste containers from the Advanced Mixed Waste Treatment Project (AMWTP) to the Idaho Nuclear Technology and Engineering Center (INTEC). The suspect containers will be opened and inspected for RH-TRU. All non-RH-TRU (i.e. low level waste, Contact Handled (CH)-TRU, secondary waste, etc.) materials will be returned to AMWTP. The identified RH-TRU waste will be repackaged as necessary and made ready for characterization and shipment to Waste Isolation Pilot Plant (WIPP).

The specific steps are:

- Transfer suspect RH-TRU waste containers from Radioactive Waste Management Complex (RWMC) to INTEC for interim storage (CPP-1789, CPP-1659, ISA-3, and/or CPP-1617) as necessary.
- Open the suspect RH-TRU containers and inspect for RH-TRU waste at INTEC in CPP-659 and/or CPP-666. Inspection actions include verifying there are no WIPP-prohibited items, collecting radiation dose and contamination information and repacking waste in an appropriate configuration to either return shipment to AMWTP or for future shipment to WIPP.
- Based on inspection data, develop waste stream specific programmatic documents (i.e., Acceptable Knowledge Summary Reports, sampling and analysis plans, certification plans, etc.) for the RH portion of the AMWTP inventory that support obtaining approval for disposal at WIPP.
- Perform characterization on the RH-TRU waste (real-time radiography, dose to curie, gamma spectroscopy, headspace gas sampling) and make ready for shipment to WIPP at INTEC in CPP-659.
- Return non-RH-TRU waste (i.e. low-level waste (LLW), CH-TRU, secondary waste, etc.) to the RWMC for transfer back to AMWTP.

The current inventory includes 62 containers (59 cubic meters) of AMWTP suspect RH-TRU waste. The waste is diverse and contains waste from multiple generators including Argonne National Laboratory-East (ANL-E); Bettis Laboratory; Materials and Fuels Complex; Naval Reactors Facility; Central Facilities Area; Test Reactor Area; RWMC; INTEC; Bendix-Grand Junction; and containers of unknown origin. Waste forms include, but are not limited to, debris waste; neutron sources; miscellaneous sources; and containers with unknown waste contents. As AMWTP continues through their process, other containers containing suspect RH-TRU may be identified that will be transferred to INTEC for processing. It is anticipated that this quantity would be no more than 20 containers per year.

Repackaging activities are scheduled to be completed by the end of FY-2015.

SECTION C. Environmental Aspects / Potential Sources of Impact

1. Air Pollutants – Air emissions containing radionuclides will be generated from the RH TRU waste characterization and repackaging actions. Prior opening containers and performing inspection actions in CPP-659 and/or CPP-666, an air permitting applicability determination (APAD) will be completed and approved.

Radionuclide Emissions – Radiological emissions to the environment, including those from diffuse sources, must be determined for demonstrating compliance with the RAD NESHAP Standard (see 40 CFR 61 Subpart H). If any fugitive or point radiological emissions are released, the performing organization Project Manager or Source Owner/Manager shall ensure that the emissions were evaluated for permitting requirements. Calendar year emissions are determined and reported to Environmental and Regulatory Services for the preceding year.

4. Chemical Use and Storage – Small amounts of chemicals will be used for decontamination and sampling activities. Spill prevention/minimization measures will be employed during storage and use of chemicals/fuels. Affirmative Procurement will be used as guidance in procuring applicable chemicals and materials.

10. Hazardous/Rad. Material or Waste Handling and Trans – A hazardous waste determination will be performed for waste streams to develop the appropriate management practices. Waste streams will be evaluated to determine if any of these materials can be recycled or reused and will be evaluated to implement actions for minimizing waste entering the landfill.

All transportation actions between the RWMC and INTEC will be performed by CWI personnel.

11. Hazardous/Mixed Waste Generation and Management – Some of the waste will be mixed RH-TRU due to containing mercury and PCB contamination.

14. PCB Contamination – Some of the waste does contain PCB contamination. PCB waste will be managed in accordance with applicable requirements. No PCB liquids, if present, can be processed into non-liquid in lieu of meeting the high temperature

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

incineration requirements for disposal. Processing that meets the RCRA definition of treatment in 40 CFR 260.10 or is primarily to facilitate disposal may require a TSCA PCB disposal approval.

16. Radioactive Waste Generation and Management - All non-RH-TRU (i.e. low level waste, Contact Handled (CH)-TRU, secondary waste, etc.) materials will be returned to AMWTP.

Secondary waste generation may include lead shielding (low-level waste or transuranic) that will be disposed of off-site through Waste Generator Services.

19. Work Within areas subject to Flooding - The AMWTP facility and the CPP-659, CPP-1659, and CPP-666 buildings are not within the 100-year floodplains of the Big Lost River or the RWMC or INTEC local watersheds. Portions of CPP-1617 and CPP-1789 are within the Big Lost River 100-year floodplain. Portions of Adams Boulevard near RWMC are within the RWMC local watershed 100-year floodplain and portions of Lincoln Boulevard near INTEC are within the Big Lost River 100-year floodplain.

The Big Lost River 100-year floodplain map indicates that portions of the west wall of CPP-666 appear to contact portions of the 100-year floodplain intermittently. Because the floodplain appears to make intermittent contact with CPP-666, the floodplain status of CPP-666 was previously evaluated in detail in 2006 to determine whether or not the CPP-666 building is in the 100-year floodplain. The 100-year floodplain map discussed above is a geo-referenced tiff file in which the pixels that represent the 100-year floodplain are about 20-foot by 20-foot squares. Thus, field surveying was performed to provide additional detail. A survey grade total station was used to determine ground level building elevations of the CPP-666 building at building corners and doorways. The results of this survey indicate that all the CPP-666 building elevations that appear to be in contact with the mapped 100-year floodplain are greater than (above) 4916.60 ft. which is the 100-year flood elevation representative of the Big Lost River 100-year floodplain in the CPP-666 area. Thus, for the purposes of this EC and for RCRA permitting, CPP-666 is not within the Big Lost River 100-year floodplain.

The western and northern edge of CPP-1617 and the northeastern corner of CPP-1789 (along Birch St.) are within the 100-year Big Lost River floodplain; therefore, activities that occur in those locations may experience some 100-year flood related impacts. If the hypothetical 100-year flood were to occur during the work described in this EC, the potential exists for 100-year flood waters to come into contact with the wastes being transported and stored in these locations at CPP-1617 and CPP-1789. If the wastes being stored in these locations at the time of the hypothetical flood include RCRA hazardous wastes, then the potential exists for flood waters to contact and "wash out" the hazardous wastes. As discussed in 40 CFR 264.18(b), procedures need to be in effect which will cause the wastes to be removed safely, before flood waters can reach the facility, to a location where the wastes will not be vulnerable to flood waters. Such procedures may include but are not limited to moving the waste containers to a location that is above the 100-year floodplain or to a building that is outside of the 100-year floodplain before the hypothetical 100-year flood waters reach CPP-1617 or CPP-1789.

The work described in this EC is not expected to have a significant impact on the 100-year floodplains discussed above and the work is not expected to disrupt floodplain dimensions, elevations, flow volumes, or velocities of the Big Lost River or the INTEC or RWMC watersheds. If the hypothetical flood(s) occurs, access to the work areas may be temporarily interrupted. Work can resume after floodwaters subside as access allows.

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: *Advanced Mixed Waste Treatment Project Final Environmental Impact Statement*, DOE/EIS-0290, January 1999.

Justification: Managing the suspect RH-TRU waste as described was addressed and the environmental impacts analyzed in the referenced EIS. Performing this scope at INTEC facilities versus the AMWTP facilities – all located within the Idaho National Laboratory – does not generate new environmental impacts nor are the environmental impacts outside of the analyses documented in the EIS

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 November 23, 2012.