

SECTION A. RWMC/AMWTP - WMF-1617 (ARP V) RCRA Closure

SECTION B. Project Description

Complete Resource Conservation Recovery Act (RCRA) closure of WMF-1617 in compliance with the RCRA Closure Plan. WMF-1617 is located at the Radioactive Waste Management Complex (RWMC).

Prior to processing HWMA/RCRA waste, WMF-1617 was used to support remedial actions. Targeted Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) waste was excavated with equipment and transported to the drum packaging stations for repackaging in new drums. All visible targeted waste was removed from the retrieval excavation area. The retrieval area consisted of native soils where transuranic-contaminated wastes were disposed in pits and trenches and then covered with soil. Radiological surveys indicate the area remains contaminated with non-uniform levels of transuranic isotopes following the CERCLA remediation activities.

To perform the sludge repackaging project (SRP), a HWMA/RCRA permit was completed. On April 11, 2018, the SRP operations in WMF-1617 resulted in a thermal event and subsequent drum over pressurization. The SRP operations in WMF-1617 were then suspended while recovery actions were implemented. SRP operations were successfully resumed on April 10, 2019 and then moved to WMF-1619 in July 2019.

Actions necessary to meet RCRA Closure Performance Standards are:

- ✓ Remove RCRA waste containers.
- ✓ Remove gross, visible RCRA waste within the treatment/storage containment pans and trays, Drum Packaging Stations (DPSs), and on equipment used in the repackaging/treatment processes.
- ✓ Process the residual material removed from trays/containment pans, DPSs, and other areas (including waste from vacuums used to remove waste residue from surfaces, trays, pans, and equipment) with the additional controls and operational restrictions used to process sludge in WMF-1619 to address potential reactions prior to the material being processed in the DPSs and placed in output drums.
- ✓ Repackage waste through the DPS and transfer to Advanced Mixed Waste Treatment Project (AMWTP) for characterization.
- ✓ Determine if process equipment and building components can be reused per the performance standard.

SECTION C. Environmental Aspects / Potential Sources of Impact

1. Air Pollutants – Performing closure, portable equipment may be used to support the activity. Air emissions from the operation of all portable equipment will be controlled as appropriate. In compliance with procedures, water or applicable dust suppression materials/equipment will be used, as conditions warrant, to control fugitive dust emissions during construction activities.

Any potential radiological and non-radiological (toxic air pollutants and criteria pollutants) emissions from closure activities are bounded by the conclusions regarding air emissions evaluations of sludge repackage project activities. Therefore, no further air emissions evaluation is required. Air pollutant emissions are predominantly controlled by the building exhaust system that is equipped with HEPA filtration and in part by the application of contamination fixatives.

3. Radionuclide Release/Protection of the Public and the Environment – The RCRA Closure actions could release radionuclides to the environment however, the potential is very low. Releases would not exceed as low as reasonably achievable goals as the releases are far below applicable regulatory standards (e.g., NESHAPS) and satisfy the exemption criteria.

4. Chemical Use and Storage - Commercial chemical products will be used as contamination fixatives, to absorb or neutralize spills, decontaminate equipment, tools, etc. and for enabling proper operation of equipment. Project personnel will use non-hazardous product alternatives or substitutes in place of hazardous chemical products as long as the non-hazardous alternative meets the performance requirement or specifications of the requester. Spill

prevention/minimization measures will be applied to all aspects of storage and utilization of chemicals/fuels. Affirmative Procurement practices will be used in procuring chemicals and other materials as applicable.

9. Waste Generation and Management - A hazardous waste determination will be performed for all secondary waste streams to identify 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 generation.

Residual hazardous wastes will be packaged, managed, and dispositioned in accordance with applicable procedures.

Closure-generated waste, i.e., low-level waste and mixed low-level waste will be staged in the vicinity of the unit being closed in a designated closure-generated CERCLA Waste Storage Area (WSA). The waste will be properly characterized, processed, or dispositioned. For this closure action, vicinity is defined as the RWMC including both the AMWTP and the Subsurface Disposal Area.

Absorbents used for treatment of waste containers containing free liquids must be currently approved against the waste acceptance criteria for either the Waste Isolation Pilot Plant or the intended low-level waste disposal facility. See aspect 13. PCB Contamination (below), for adding absorbent to PCB-contaminated waste containers containing free liquids.

PCB waste will be segregated and repackaged for further processing in other appropriate facilities as required.

Industrial waste will be generated from constructing the passageway and general operations. This waste stream will be disposed of at the INL Landfill Complex.

All waste management will be coordinated with Waste Generator Services (WGS) personnel.

10. Material or Waste Handling and Transportation - All waste handling and or transportation will be coordinated with WGS and the RWMC/AMWTP and RWMC/ARP transportation personnel in full accordance with all RWMC/ AMWTP and RWMC/ARP transportation plans and procedures as applicable.

All applicable waste will be diverted from disposal in the landfill where conditions allow. Project personnel will use every opportunity to recycle, reuse and recover materials and divert waste from the landfill when possible. The project will 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 recycle content or are non-toxic or less toxic alternatives.

11. Interaction with Wildlife/Habitat –A nesting bird survey is required for activities that could impact nesting birds and will be conducted between April 1 and September 1.

If migratory bird nests with birds and/or eggs are discovered, cease work nearby, and notify the facility Project Environmental Lead.

13. PCB Contamination – A Risk-Based Disposal Application approved by EPA Region 10 authorized absorption of incidental liquids associated with containers of solidified organic sludge that is TRU-contaminated PCB Remediation waste stored at AMWTP and designated for disposal at WIPP. The RBDA limited absorption to containers with 10 percent or less liquid by volume without additional EPA review and approval. Additional specific containers with greater than 10 percent liquid have been authorized as addendums to the RBDA and via email communication with EPA Region 10. The RBDA was amended as part of the recovery process following the April 2018 drum event. Spills or releases of PCB Remediation waste associate with work subject to the RBDA was addressed according to the applicable requirements.

The RBDA requires that all equipment and structures which are or may be contaminated by PCB remediation waste as a result of work subject to the approval to be decontaminated according to the requirements of 40 CFR 761.79, a clean

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debris surface according to the alternate treatment standards for hazardous debris in 40 CFR 268.45, or disposed of according to applicable requirements of 40 CFR Part 761. This work shall be conducted on a schedule consistent with closure requirements of the RCRA permit. Written notice was provided to the EPA at least 30 days prior to the start of closure. Prior to closure, porous surfaces such as a drum or liner not originally in contact with PCBs, but which became contaminated by contact with equipment or sludge during activities subject to the RBDA where: 1) there was no visual evidence of sludge transfer to the surface; or 2) minor amounts of sludge were removed (e.g., by wiping or scraping) were considered to be contaminated with PCBs less than 50 ppm and could be managed based on their radioactive properties pursuant to 40 CFR 761.50(b)(7)(ii).

PCB waste will be managed as described in Aspect #9 above.

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: B6.1, *Cleanup actions*

Justification: The proposed action is a small-scale, short-term cleanup action that will not cost more than \$10M and will reduce risk to human health and the environment.

Is the project funded by the American Recovery and Reinvestment Act of 2009 (Recovery Act) Yes No

Approved by Jason Sturm, DOE-ID NEPA Compliance Officer on April 29, 2020.