

DOE-ID NEPA CX DETERMINATION

Idaho National Laboratory

SECTION A. Project Title: Radiological Source Disposition Program

SECTION B. Project Description and Purpose:

The Idaho National Laboratory (INL) Radiological Source Disposition Project is funded by the National Nuclear Security Administration's (NNSA) Office of Radiological Security (ORS). This project recovers disused and unwanted radiological sources from sites throughout the United States. This operation is part of NNSA's broad strategy to keep dangerous nuclear and radiological material safe and secure.

The INL works in partnership with Los Alamos National Laboratory's (LANL's) Off-site Source Recovery Project to identify, recover, and dispose disused and unwanted radiological sources throughout the United States. These radiological source materials are limited to cesium-137 (Cs-137), Cobalt-60 (Co-60), Nickel-63 (Ni-63), and Strontium-90 (Sr-90). Working in partnership with radiological source owners and state and local regulators, the INL team removes and transports the material to a secure location then prepares it for disposal at a federal low-level waste (LLW) disposal facility, or INL transports the material directly to a LLW disposal facility. Commercial origin sources to which DOE takes title predominate the recovered sources.

Source recoveries occur at various off-site facilities, including hospitals, universities, blood centers, and other commercial and government facilities. An INL or LANL contractor prepares source-containing devices and removes the device from the owner's or custodian's facility. INL personnel then package the device for transport in a Department of Transportation approved type-B package (either an EnergySolutions model 10-160B or Areva model 435-B shipping cask). After INL personnel complete a pre-shipment leak test, the owner or custodian relinquishes ownership and custody of the sealed source(s) to DOE/NNSA. An INL subcontractor transports packages to an interim storage facility at Southwest Research Institute or to a DOE disposal site. The project recovers about 40 sources per year from various locations in the U.S.

Source disposals occur less frequently than recoveries and involve packaging consolidated sources at the interim storage and consolidation facility (Southwest Research Institute) and shipment to the Nevada National Security Site for disposal. INL personnel load and ship consolidated sources in either a 10-160B or 435-B packages. The procedures for loading and shipping consolidated sources are the same for loading and shipping recovered sources.

In addition to source recoveries, the program performs research and development for source recovery technologies, such as robotics development and testing.

The environmental impacts of transferring LLW, including from the Source Recovery Project, to the Nevada National Security Site were analyzed in the Final Site-Wide Environmental Impact Statement for the Continued Operation of the Nevada National Security Site and Off-Site Locations in the State of Nevada (DOE/EIS-0246, 2013).

SECTION C. Environmental Aspects or Potential Sources of Impact:

Air Emissions

Transportation activities use fossil fuels and release greenhouse gases.

Waste packaging activities place bagged, drummed, or otherwise containerized material into waste boxes for transport and disposal at NNSA. Air emissions are not anticipated from these activities.

Generating and Managing Waste

The *Final Site-Wide Environmental Impact Statement for the Continued Operation of the Nevada National Security Site and Off-Site Locations in the State of Nevada* (DOE/EIS-0246, 2013) estimated the Source Recovery Project would send about 8,500 ft³ of LLW at the Nevada National Security Site.

Releasing Contaminants

Though very unlikely, the potential exists for a release of contaminants during packaging and transportation activities (e.g., shipping accident).

When project activities involve the purchase or acquisition of chemicals, project personnel must obtain approval to purchase the chemical(s) from the Facility Chemical Coordinator. All chemicals will be managed in accordance with laboratory procedures. When dispositioning surplus chemicals, project personnel must contact the facility Chemical Coordinator for disposition instructions.

Although not anticipated, there is a potential for spills when using chemicals or fueling equipment. In the event of a spill, notify facility PEL. If the PEL cannot be contacted, report the release to the Spill Notification Team (208-241-6400). Clean up the spill and turn over spill cleanup materials to WGS.

Using, Reusing, and Conserving Natural Resources

Transportation activities use fossil fuels and release greenhouse gases.

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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 B2.6, "Recovery of radioactive sealed sources"

Final Site-Wide Environmental Impact Statement for the Continued Operation of the Nevada National Security Site and Off-Site Locations in the State of Nevada (DOE/EIS-0246, 2013)

Justification: The activities described in this EC are consistent with CX B2.6, "Recovery of radioactive sealed sources and sealed source-containing devices from domestic or foreign locations provided that (1) the recovered items are transported and stored in compliant containers, and (2) the receiving site has sufficient existing storage capacity and all required licenses, permits, and approvals."

The environmental impacts of transferring LLW, including from the Source Recovery Project, to the Nevada National Security Site were analyzed in the Final Site-Wide Environmental Impact Statement for the Continued Operation of the Nevada National Security Site and Off-Site Locations in the State of Nevada (DOE/EIS-0246, 2013).

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 25, 2019