

# DOE-ID NEPA CX DETERMINATION

## Idaho National Laboratory

**SECTION A. Project Title:** MFC-752AL Special Projects Glovebox Modification for Laser Flash Diffusivity Instrument Removal (AL-1700, AL-1730)

**SECTION B. Project Description and Purpose:**

The proposed action would remove the laser flash diffusivity instrument and associated equipment (control unit, chiller, and vacuum pump) installed in the special projects glovebox (SPGB) located at the Materials and Fuels Complex (MFC) building 752 (MFC-752). The equipment is no longer in use and space is needed for future research and experiments. The instrument and associated equipment would be isolated from utilities, and the floor plate to the glovebox would be removed and replaced.

Installation of the laser flash diffusivity instrumentation was covered in environmental checklist (EC) ANL-W-EC-483 which referenced categorical exclusion (CX) B3.6 to support quantitative determination of thermal properties of ceramic, glass, and metal samples.

The laser diffusivity instrumentation was used to process metallic fuel samples fabricated from EBR-II feedstock and defense related plutonium feedstock. For most of its 30 years, EBR-II was the nation's principal fast spectrum irradiation facility. From the earliest years, the reactor irradiated experiments that supported both defense programs and civilian reactor development programs. Thirty-nine EBR-II experiments have been positively identified as defense experiments, and another 20 have been identified as possibly being defense related. The laser diffusivity instrumentation has been in contact with both defense and non-defense related materials. It is impractical to clean out defense related contamination, and therefore, waste associated with project activities is eligible for disposal at the Waste Isolation Pilot Plant (WIPP).

The Final Environmental Impact Statement for WIPP (DOE/EIS-0026, October 1980) and Final Supplement Environmental Impact Statement for WIPP (SEIS-I) (DOE/EIS-0026-FS, January 1990) examined the impacts of transporting and disposing of waste resulting from defense activities and that was placed in retrievable storage pursuant to a 1970 Atomic Energy Commission policy (see Section 1.2) and TRU waste that was reasonably expected to be generated by these ongoing activities and programs.

NEPA coverage for the transportation and disposal of waste to WIPP are found in Final Waste Management Programmatic Environmental Impact Statement [WM PEIS] (DOE/EIS-0200-F, May 1997) and Waste Isolation Plant Disposal Phase Supplemental EIS (SEIS-II) (DOE/EIS-0026-S-2, Sept. 1997), respectively. The 1990 Record of Decision (ROD) also stated that a more detailed analysis of the impacts of processing and handling TRU waste at the generator-storage facilities would be conducted. The Department has analyzed TRU waste management activities in the Final Waste Management Programmatic Environmental Impact Statement (WM PEIS) (DOE /EIS-200-F, May 1997). The WM PEIS analyzes environmental impacts at the potential locations of treatment and storage sites for TRU waste; SEIS-II addresses impacts associated with alternative treatment methods, the disposal of TRU waste at WIPP and alternatives to that disposal, and the transportation to WIPP. (SEIS-II also includes potential transportation between generator sites.)

**SECTION C. Environmental Aspects or Potential Sources of Impact:**

**Air Emissions**

There is a possibility for disturbance of asbestos containing building materials.

**Disturbing Cultural or Biological Resources**

MFC-752 is potentially eligible for nomination to the National Register of Historic Places. Removal and/or changes of original features could adversely impact this historic property.

**Generating and Managing Waste**

Typical construction debris waste such as wire, scrap metal piping, packaging material, Resource Conservation and Recovery Act (RCRA) empty chemical containers, etc., would be generated during the project.

The project will generate approximately 1 m3 of transuranic (TRU) waste.

**Releasing Contaminants**

Although not anticipated, spills may occur.

**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.

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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, B3.6, "Small-scale research and development, laboratory operations, and pilot projects"

Final Environmental Impact Statement for the Waste Isolation Pilot Plant (DOE/EIS-0026, October 1980) and Final Supplement Environmental Impact Statement for the Waste Isolation Pilot Plant (SEIS-I) (DOE/EIS-0026-FS, January 1990)

Final Waste Management Programmatic Environmental Impact Statement [WM PEIS] (DOE/EIS-0200-F, May 1997) and Waste Isolation Plant Disposal Phase Supplemental EIS (SEIS-II) (DOE/EIS-0026-S-2, Sept. 1997)

**Justification:** Project activities are consistent with 10 CFR 1021, Appendix B, B3.6, "Siting, construction, modification, operation, and decommissioning of facilities for small-scale research and development projects; conventional laboratory operations (such as preparation of chemical standards and sample analysis); and small-scale pilot projects (generally less than 2 years) frequently conducted to verify a concept before demonstration actions provided that construction or modification would be within or contiguous to a previously disturbed or developed area (where active utilities and currently used roads are readily accessible). Not included in this category are demonstration actions, meaning actions that are undertaken at a scale to show whether a technology would be viable on a larger scale and suitable for commercial deployment."

NEPA coverage for the transportation and disposal of waste to WIPP are found in DOE/EIS-0200-F (May 1997) and Waste Isolation Plant Disposal Phase Supplemental EIS (SEIS-II) (DOE/EIS-0026-S-2, Sept. 1997), respectively. The 1990 ROD also stated that a more detailed analysis of the impacts of processing and handling TRU waste at the generator-storage facilities would be conducted. DOE has analyzed TRU waste management activities in DOE /EIS-200-F (May 1997). The WM PEIS analyzes environmental impacts at the potential locations of treatment and storage sites for TRU waste; SEIS-II addresses impacts associated with alternative treatment methods, the disposal of TRU waste at WIPP and alternatives to that disposal, and the transportation to WIPP. (SEIS-II also includes potential transportation between generator sites.)

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: 2/27/2017