

DOE-ID NEPA CX DETERMINATION

Idaho National Laboratory

SECTION A. Project Title: Irradiated Graphite Characterization - Glove Box Installation

SECTION B. Project Description and Purpose:

A new glovebox is needed to support graphite characterization at the Idaho National Laboratory (INL) Research Complex (IRC) that is conducted for research associated with the Very High Temperature Reactor (VHTR) program. The proposed action would install a new glovebox in Lab C18-B at IRC, building Idaho Falls (IF)-603 and would provide supply and exhaust ventilation for the glovebox. It is anticipated the glovebox will be used by this program through approximately 2022 then repurposed for other needs.

The following activities would be complete as part of the proposed action:

1. Connect a new 10" diameter supply air galvanized duct into the 12" X 16" supply air duct in Lab C-19
2. Route approximately 25' of new duct into a diffuser in Lab C18-B
3. Connect 6" diameter exhaust air stainless steel duct into 12" diameter exhaust air duct in Lab C-19
4. Route approximately 25' of duct into Lab C18-B
5. Install new (uncontaminated) glovebox into Lab C18-B
6. Install high-efficiency particulate air (HEPA) filters
7. Connect the new exhaust duct to the new glovebox
8. Remove the old supply air diffuser in Lab C18-B and cap the duct above the ceiling
9. Install flanged damper with welded joints on exhaust duct.

The cost of glovebox installation and associated facility modifications is estimated to be \$15K.

SECTION C. Environmental Aspects or Potential Sources of Impact:

Air Emissions

The construction work may release small amounts of volatile compounds from adhesives and other construction materials. The addition of the glovebox is not anticipated to result in increased chemical or radionuclide emissions from IRC since this work is already in place. Addition of a glovebox may result in lower emissions if the glovebox is equipped with an approved HEPA filter. Radionuclide emissions will be reported in the annual Radiological National Emission Standards for Hazardous Air Pollutants (NESHAP) report.

Generating and Managing Waste

General industrial construction waste is expected, including wipes, rags, and scrap metal. All scrap metal will be recycled to the extent practicable. All Solid Waste will be managed by Waste Generator Services (WGS).

Releasing Contaminants

Although not expected, small spills (e.g., paint) may occur. Spills would be cleaned up, and notifications to the Facility Manager, Spill Notification Team, and Environmental Support would be made.

Using, Reusing, and Conserving Natural Resources

All scrap metal will be recycled to the extent practicable.

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: National Environmental Policy Act (NEPA) Implementing Procedures, Final Rule, 10 CFR 1021, Appendix B to Subpart D, Categorical Exclusion B1.31 "Installation or relocation of machinery and equipment."

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Justification: The proposed activities are consistent with CX B1.31 "Installation or relocation and operation of machinery and equipment (including, but not limited to, laboratory equipment, electronic hardware, manufacturing machinery, maintenance equipment, and health and safety equipment), provided that uses of the installed or relocated items are consistent with the general missions of the receiving structure. Covered actions include modifications to an existing building, within or contiguous to a previously disturbed or developed area, that are necessary for equipment installation and relocation. Such modifications would not appreciably increase the footprint or height of the existing building or have the potential to cause significant changes to the type and magnitude of environmental impacts."

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: 9/14/2016