DOE-ID NEPA CX DETERMINATION
Idaho National Laboratory

CX Posting No.: DOE-ID-INL-20-091

SECTION A. Project Title: MFC-752AL B-148 Lab Space Renovation Design and Facility Modifications for ICP-OES Installation

SECTION B. Project Description and Purpose:

The Analytical Laboratory (AL) is planning to refurbish lab space B-148, including the installation of new laboratory equipment. The current laboratory is outdated, and changes are needed to replace outdated and degraded equipment, and to improve energy efficiency and appearance. The existing fume hoods are constant air volume which are not energy efficient and require too much airflow to operate. In addition, the ICP-OES (optical emission spectrometer) is at end of life and needs to be replaced with modern equipment.

Demolition and dismantling activities will include the following in B-148:

- Wall base and asbestos flooring.
- Fume hoods.
- Laboratory furniture including cabinets, bench top, and sink.
- Utilities to hoods, bench top, and sink.
- Exhaust ductwork to a convenient location near the floor.
- HEPA filter housing.
- Ceiling panel.
- Lights.
- Selected electrical devices and conduit.

Refurbishment and Equipment Installation in B-148 will include:

- Repainting the room.
- Installing new floor tile and wall base.
- Installing new steel casework (wall and base cabinets with new work surfaces).
- Installing two new 6 ft. fume hoods with variable volume control valves and fume hood controllers and connect to DDC.
- Installing new exhaust ductwork with connections for new and future laboratory equipment (i.e. fume hoods, ICP-OES, prepFAST).
- Installing and connecting new sink.
- Feeding new laboratory equipment (i.e., fume hoods, benchtop valves, etc.) with utility services and provide utility connections (i.e., gas supplies, power, and suspect exhaust) for new ICP-OES.
- Installing new lighting and lighting controls.
- Installing wire mold.

All waste shall be disposed of per Waste Generator Services direction ("All waste" includes but is not limited to lead paint and asbestos).

SECTION C. Environmental Aspects or Potential Sources of Impact:

Air Emissions

Installation and operation of this equipment will release small quantities of radioactivity into the HEPA filtered analytical laboratory ventation system. These emissions would not increase above historical levels released by the facility and therefore would not constitute a new source or modification, no APAD required.

Discharging to Surface-, Storm-, or Ground Water

N/A

Disturbing Cultural or Biological Resources

The MFC Analytical Laboratory (MFC-752) is eligible to the National Register of Historic Places. Removal and/or changes of original features may adversely impact this historic property.

Generating and Managing Waste

Both industrial and radioactive low-level waste will be generated. Industrial waste will be from debris from removal activities, including asbestos. Small quantities of radioactive low-level waste will be generated during the equipment removal and replacement modifications. Industrial waste will be evaluated for waste minimization prior to generation, and industrial waste generated during proposed activities will be evaluated for recycling opportunities prior to disposal at the INL Landfill Complex. Project activities have the potential to generate asbestos and lead based paint material which will need to be disposed of accordingly. All solid waste will be managed by WGS using approved laboratory procedures.

Releasing Contaminants

All chemicals typically used will be managed in accordance with laboratory procedures. All chemicals and associated Safety Data Sheets (SDS's) must be submitted in the vendor data system for approval. The Chemical Coordinator would track these chemicals in the INL Comply Plus Chemical Management System. Chemical use has a potential for small air emissions and spills. In the event of a spill, notify MFC Environmental staff If the MFC Environmental Manager 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 Waste Generator Services.

Using, Reusing, and Conserving Natural Resources

All material will be reused and/or recycled where economically practicable. All applicable waste would be diverted from disposal in the landfill when possible. Project personnel would use every opportunity to recycle, reuse, and recover materials and divert waste from the landfill when possible. The project would practice sustainable acquisition, as appropriate and practicable, by procuring materials that are energy efficient, water efficient, are bio-based in content, environmentally preferable, non-ozone depleting, have recycled content, and are non-toxic or less toxic alternatives.

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, item B1.31 "Installation or relocation of machinery and equipment."

Justification: The proposed installation is consistent with 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 Jason Sturm, DOE-ID NEPA Compliance Officer on: 01/26/2021