# DOE-ID NEPA CX DETERMINATION Idaho National Laboratory

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CX Posting No.: DOE-ID-INL-22-002

# SECTION A. Project Title: ESL(IF-685) Compressed Air System Relocation

## SECTION B. Project Description and Purpose:

The current Energy Systems Laboratory (ESL, IF-685) compressed air system, located within the south wall enclosure of the D100 high bay, does not provide adequate dry air for laboratory operations, takes up valuable laboratory space that is needed for future research projects and adds to noise levels throughout the high bay when operating.

The proposed project would move the compressed air system from it's current location to a new 500 sq. ft. compressor building that would be located outside the southeast corner of ESL Bay D100. The existing compressed air system will be removed, and either excessed or repurposed. None of the existing equipment in the current compressed air system area will be reused for the new system. The piping, power, and controls will be distributed from the new building to defined locations within ESL.

The new compressed air building will be a single-story building with steel studs, exterior metal siding, batt insulation with a man door and rollup overhead door. The roof will have steel trusses with metal panels such as standing seam metal roofing. The interior walls will be finished with fiberglass reinforced plastic (FRP) panels. The building foundation will consist of cast-in-place concrete perimeter footing, stem wall, and slab. The building will be attached to the foundation using anchor bolts and hold-downs. The storm water underground drain line (receives roof drainage) in the area near the building will need to be re-routed around the building foundation.

The new compressed air system equipment that will be housed in the building include:

Two new Kaeser, Model SFC-37, 50 HP, variable speed, scroll-type, air cooled compressors requiring 480 volt, 3-phase, 60 Hz power.

Two Kaeser, Model KAD260PS desiccant dryers

One 500-gallon Manchester air receiver tank

One 1,060-gallon Manchester reciever tank

Associated piping, electrical, and lighting.

Sketches of the building and location are below.



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

#### **Air Emissions**

Fugitive dust could be generated while excavating for the building foundation. The new air compressors are electric compressors, not fuel burning. The new air compressor building will be heated but not cooled, so no refrigerant work is required.

#### Discharging to Surface-, Storm-, or Ground Water

Underground storm water piping will be re-routed around the new building foundation. The facility storm drain piping leads to facility registered shallow injection wells/bioswales. Characteristics or volume of the storm water wouldn't change with this simple line re-route.

## **Disturbing Cultural or Biological Resources**

Excavation for the building foundation will be minimal (500 sq. ft., approx. 30-inch depth) and within the previously disturbed ESL facility footprint. The Cultural Resource Review (BEA-22-H072) was conducted and determined there would be no effect to historic properties for this project and no further review is required.

Excavation and construction activities for the building have the potential to disturb nesting birds.

### **Generating and Managing Waste**

Project activities will generate non-hazardous industrial waste such as paper, cardboard, sheet metal scrap, concrete, asphalt, insulation, scrap piping, PVC pipe, etc. Hazardous waste generation is not anticipated.

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#### **Releasing Contaminants**

Activities addressed by this ECP have the potential to release contaminants through:

- · Acquiring, using, storing, and dispositioning chemicals
- · Managing and dispositioning excess property and materials
- · Reporting and cleaning up spills and releases

### Using, Reusing, and Conserving Natural Resources

Scrap metal will be recycled to the extent practical.

Project description indicates materials will need to be purchased or used that require sourcing materials from the environment. Being conscientious about the types of materials used could reduce the impact to our natural resources. Project activities will impact stormwater.

# 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 B1.15, "Support Buildings."

**Justification:** Project activities are consistent with 10 CFR 1021, Appendix B, B1.15: Siting, construction or modification, and operation of support buildings and support structures (including, but not limited to, trailers and prefabricated and modular buildings) within or contiguous to an already developed area (where active utilities and currently used roads are readily accessible). Covered support buildings and structures include, but are not limited to, those for office purposes; parking; cafeteria services; education and training; visitor reception; computer and data processing services; health services or recreation activities; routine maintenance activities; storage of supplies and equipment for administrative services and routine maintenance activities; security (such as security posts); fire protection; small-scale fabrication (such as machine shop activities), assembly, and testing of non-nuclear equipment or components; and similar support purposes, but exclude facilities for nuclear weapons activities and waste storage activities, such as activities covered in B1.10, B1.29, B1.35, B2.6, B6.2, B6.4, B6.5, B6.6, and B6.10 of this appendix.

is the project funded by the American Recovery and Reinvestment Act of 2009 (Recovery Act) 1185	Is the	project funded by	y the American Re	covery and Reinvestmen	t Act of 2009 (Recover	ry Act)	]Yes 🛛	🛛 No
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Approved by Jason L. Anderson, DOE-ID NEPA Compliance Officer on: 03/03/2021