

# DOE-ID NEPA CX DETERMINATION

## Idaho National Laboratory

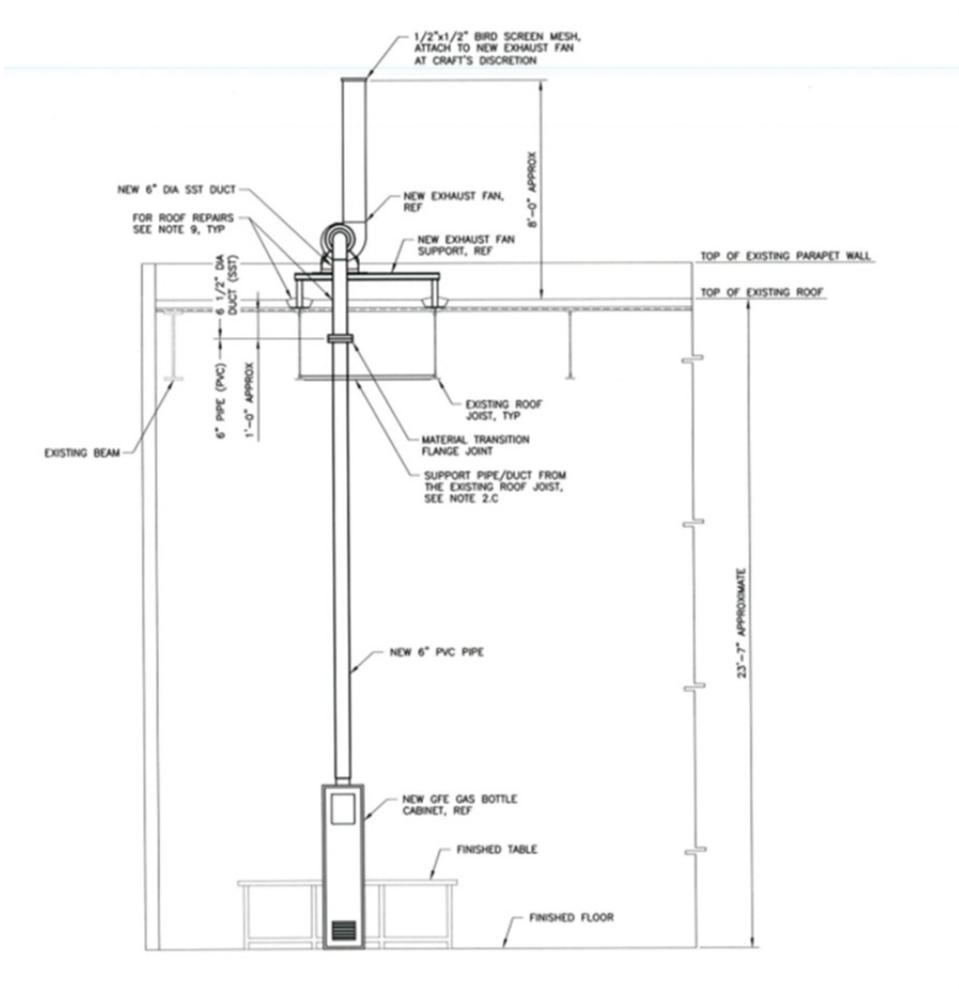
**SECTION A. Project Title:** Laboratory Modifications to Bays 8/9 at the Bonneville County Technology Center

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

Environmental Checklist (EC) INL-15-054 (Overarching [OA] 18) approved small-scale preparation and purification of fluoride salt mixtures at Idaho National Laboratory's (INL's) Bonneville County Technology Center (BCTC) in Idaho Falls. Purification of the salt mixtures is accomplished by hydrofluorination using hydrogen fluoride (HF) gas which is purchased and stored in a gas cylinder. The cylinder needs to be stored in a vented cylinder enclosure to ensure personnel safety. The purpose of this EC is to perform laboratory modifications at the BCTC in bays 8/9. The modifications include installing the enclosure, a stack through the roof, and a stack fan which are needed to vent unexpected and off-normal leaks from the HF cylinder. The stationary stack will not be the source of routine emissions. Routine emissions from the research and development (R&D) process are covered under Air Permit Applicability Determination (APAD) INL-15-009.

Modifications to bays 8/9 are depicted in Figure 1.

Figure 1. Modifications to Bays 8/9.



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

### Air Emissions

The cylinder enclosure and vent system are intended to vent unexpected and off-normal leaks from the HF cylinder. The stationary stack will not be the source of routine emissions. Routine emissions from the R&D process are covered under APAD INL-15-009. Off-normal leaks from the HF cylinder must be reported via the Battelle Energy Alliance, LLC (BEA) Spill Notification Team since Fluorides are identified as an Air Toxic under Idaho Administrative Procedures Act (IDAPA) 58.01.01.585 and as a pollutant under IDAPA 58.01.01.006 with a significant amount of 3 tons/year.

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**Generating and Managing Waste**

Industrial waste, in the form of personal protective equipment (PPE), scrap metal, adhesives, and similar waste will be generated. Scrap metal will be recycled to the extent practicable. All Solid Waste will be managed by Waste Generator Services (WGS).

**Using, Reusing, and Conserving Natural Resources**

Scrap metal will be recycled to the extent practicable. All applicable waste will be diverted from disposal in the landfill when possible. Project personnel will use every opportunity to recycle, reuse, and recover materials and divert waste from the landfill when possible. The project will practice sustainable acquisition, as appropriate and practicable, by procuring construction materials that are energy efficient, water efficient, are bio-based in content, environmentally preferable, non-ozone depleting, have recycled content, or are non-toxic or less-toxic alternatives. New equipment will meet either the Energy Star or Significant New Alternatives Policy (SNAP) requirements as appropriate (see <http://www.sftool.gov/GreenProcurement>).

**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, B2.5 "Facility safety and environmental improvements"

**Justification:** Project activities are consistent with 10 CFR 1021, Appendix B, B2.5 "Safety and environmental improvements of a facility (including, but not limited to, replacement and upgrade of facility components) that do not result in a significant change in the expected useful life, design capacity, or function of the facility and during which operations may be suspended and then resumed. Improvements include, but are not limited to, replacement/upgrade of control valves, in-core monitoring devices, facility air filtration systems, or substation transformers or capacitors; addition of structural bracing to meet earthquake standards and/or sustain high wind loading; and replacement of aboveground and belowground tanks and related piping, provided that there is no evidence of leakage, based on testing in accordance with applicable requirements (such as 40 CFR part 265, "Interim Status Standards for Owners and Operators Hazardous Waste Treatment, Storage, and Disposal Facilities" and 40 CFR part 280, "Technical Standards and Corrective Action Requirements for Owners and Operators of Underground Storage Tanks"). These actions do not include rebuilding or modifying substantial portions of a facility (such as replacing a reactor vessel)."

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: 8/24/2015