

# DOE-ID NEPA CX DETERMINATION

## Idaho National Laboratory

### **SECTION A. Project Title:** Materials and Fuels Complex (MFC)-768 Fire Suppression System Conversion

### **SECTION B. Project Description:**

The project scope consists of modifying two (2) separate sections of the Power Plant (MFC-768) Fire Suppression System to convert them from wet pipes to dry pipes. These modifications are required to comply with National Fire Protection Association (NFPA) requirements for maximum glycol/water ratios per NFPA 13 - Standard for the Installation of Sprinkler Systems. For the portions of the system list below, the legal limit for glycol/water mixtures has been determined to provide an inadequate antifreeze solution for protecting against freeze protection. The sections to be modified are comprised of: 1) Antifreeze loop (piping and sprinkler heads) from MFC-768 to MFC-768B, and 2) Antifreeze loop (piping and sprinkler heads) from MFC-768 to MFC-768E.

Work scope includes: 1) Demolition of existing piping (including disposal of existing glycol solution), 2) Installation of new piping, valves, and sprinkler heads (wall coring/penetration maybe required), 3) Installation of either a) plant air connection with riser mounted receiver tank - desired, b) nitrogen cylinder, or c) riser mounted air compressor and associated power, 4) Installation of new fire alarm detection and supervision modules with wiring and Fire Alarm Control Panel programming, and 5) Installation of drain piping and/or splash block installation to accommodate system testing.

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

**Air Emissions:** Mobile sources such as generators, welders, and compressors may be used temporarily (less than a year) by the subcontractors at the construction site. These sources would be required to meet Idaho Administrative Procedures Act (IDAPA) 58.01.01.625 visible emission opacity requirements.

There is a possibility for disturbance of asbestos containing building materials. All asbestos work must be conducted by properly trained personnel using appropriate abatement methods. Quantities of asbestos that are to be disturbed will be communicated to the Construction Environmental Support and Services (ES&S) representative in order to file the Asbestos Removal Notification Form (450.04). Asbestos work will not take place until the project has received approval from the Asbestos National Emission Standards for Hazardous Air Pollutants (NESHAPs) Technical Point of Contact (TPOC).

**Disturbing Cultural or Biological Resources:** MFC-768 is eligible for listing on the National Register of Historic Places. The project as described is exempted from cultural resource review (Idaho National Laboratory [INL] Cultural Resources Management Plan, Table 2, exemption 6 [Department of Energy Idaho Operations Office (DOE/ID)-10997 rev. 5]). Therefore, the project may proceed as planned.

**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. Sprinkler heads would likely be managed as RCRA scrap metal. Hazardous waste is not anticipated; however, there is a potential for generating hazardous waste from adhesives, paints, or from chemical spills. The glycol in the existing system at MFC-768 will be drained, containerized and turned over to Waste Generator Services (WGS) for disposal. All waste would be characterized and dispositioned at the direction of WGS.

**Releasing Contaminants:** Typical Construction chemicals such as fuels, adhesives, lubricants, paints, etc., would be used. The Subcontractor would submit all chemicals and associated Material Safety Data Sheets (MSDS's) in the vendor data system for approval. The Construction Chemical Coordinator would track these chemicals in the INL Comply Plus Chemical Management System. Chemical use has a potential for small amounts of air emissions and spills. Any spills that occur from these chemicals would be reported to the Spill Notification Team and would be cleaned up by the subcontractor.

Polychlorinated Biphenyl (PCB) contamination is not anticipated; however, contamination control methods may be required if disturbing painted surfaces (drilling holes, etc.).

**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. New equipment would meet either the Energy Star or Significant New Alternatives Policy (SNAP) requirements as appropriate (see <https://sftool.gov/green-products/0/hvacmechanical?agency=0>). In addition, the project would 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. Such purchases could include hydraulic fluid in accordance with BioPreferred requirements (<https://sftool.gov/green-products/0/lube-oil-hydraulic-fluid-grease?agency=0>). Fire suppression materials will be procured in accordance with SNAP requirements, as appropriate (see <https://sftool.gov/green-products/0/special-construction-products?agency=0>).

### **SECTION D. Determine the Recommended Level of Environmental Review (or Documentation) and Reference(s):** Identify the applicable categorical exclusion from 10 Code of Federal Regulation (CFR) 1021, Appendix B, give the appropriate justification, and the approval date.

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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 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 B2.2 "Building and equipment instrumentation."

**Justification:** Project activities in this EC are consistent with 10 CFR 1021 Appendix B to Subpart D, Categorical Exclusion B2.2, "Installation of, or improvements to, building and equipment instrumentation (including, but not limited to, remote control panels, remote monitoring capability, alarm and surveillance systems, control systems to provide automatic shutdown, fire detection and protection systems, water consumption monitors and flow control systems, announcement and emergency warning systems, criticality and radiation monitors and alarms, and safeguards and security equipment."

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: 11/21/2014