

# DOE-ID NEPA CX DETERMINATION

## Idaho National Laboratory

### SECTION A. Project Title: Replace MFC-768 Cooling Water Pumps

### SECTION B. Project Description and Purpose:

The MFC-768 cooling water system provides the Fuel Conditioning Facility (FCF), Analytical Laboratory (AL), Fuels and Applied Science Building (FASB), and the power plant with various cooling loads. The pumps for the system are outdated and need to be replaced. The proposed action replaces the two system pumps with two Paco LC series pumps with a design point of 250 GPM at 60 psig with a 15 HP motor. The pumps will be mounted to existing pedestals. The gate valves on the suction and discharge piping will be replaced with 6" butterfly valves. Check valves will still be used, but will be replaced with new valves. A strainer will not be installed on the suction side, but will be replaced with a flanged eccentric reducer to go from 6" pipe to the 2.5" pump suction. The pump discharge will use a similar configuration as currently installed to go from the 2" flanged discharge to the replacement 6" check valve. Slip-on flanges will be used with the 6" suction and discharge piping to tie into the 6" flanged butterfly valves. The applicable piping code will be ASME B31.9 2014. Design pressure is 100 psig and design temperature is 200 F.

The Paco LC series pumps' suction and discharge ports do not match the dimensional locations of the suction and discharge ports for the old pumps. To compensate for these differences, a layer of concrete will be added to line-up the new pump suction with the suction piping, and the discharge piping will be modified. The new layer of concrete will be anchored to the base and tied to the rebar supports. A wire mesh pad will also be embedded within the new layer of concrete. For piping modifications, slip weld flanges and butt welded pipe will be used. This project is expected to occur in fiscal year 2018 and to cost approximately \$25,000. The project duration is expected to be 4 weeks.

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

#### Air Emissions

Emissions typical of cutting/grinding/welding are anticipated.

Project activities have the potential to disturb asbestos containing building materials.

#### Disturbing Cultural or Biological Resources

MFC-768 is eligible for nomination to the National Register of Historic Places. Removal and/or changes of original features may adversely impact this historic property; however, the project activities are exempt and may proceed as described without further cultural resource review. The described project activities fall under exemption 2 (routine maintenance activities) listed in Table 2 (Idaho National Laboratory Cultural Resource Management Office. Idaho National Laboratory Cultural Resource Management Plan. DOE/ID-10997, revision 6, Idaho Falls, Idaho: U.S. Department of Energy, Idaho Operations Office, 2016, pg 51).

#### Generating and Managing Waste

Industrial waste may include typical waste such as scrap metal.

The old pumps are older than 1982; suspect PCBs in the external paint could result in PCB waste. Any associated piping that is painted may also contain PCBs and could also result in PCB waste.

Project activities also have the potential to generate asbestos containing waste.

#### Releasing Contaminants

Typical construction chemicals such as fuels, lubricants, cable cleaner, etc., will be used during the project.

The external paint on the pumps and associated piping may contain PCBs.

#### Using, Reusing, and Conserving Natural Resources

All materials would be reused and/or recycled where economically practicable. All applicable waste would be diverted from disposal in the landfill where conditions allow.

### 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)-

**DOE-ID NEPA CX DETERMINATION**  
**Idaho National Laboratory**

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 B1.5 "Existing steam plants and cooling water systems."

**Justification:** The proposed activities are consistent with CX B1.5, "Minor improvements to existing steam plants and cooling water systems (including, but not limited to, modifications of existing cooling towers and ponds), provided that the improvements would not: (1) Create new sources of water or involve new receiving waters; (2) have the potential to significantly alter water withdrawal rates; (3) exceed the permitted temperature of discharged water; or (4) increase introductions of, or involve new introductions of, hazardous substances, pollutants, contaminants, or CERCLA-excluded petroleum and natural gas products."

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: 12/04/2017