

DOE-ID NEPA CX DETERMINATION

Idaho National Laboratory

SECTION A. Project Title: TRA-671 Secondary Cooling Water Chemical Addition System

SECTION B. Project Description and Purpose:

The proposed action replaces the chemical storage tanks, pumps, and controllers for the sodium hypochlorite chemical addition system within the cooling water system in building Test Reactor Area (TRA)-671. The purpose of the proposed action is to improve the chemical addition process and reduce the amount of emissions that result from chemical transportation and delivery. The chemical addition system's function is to control algae growth and corrosion in the secondary coolant system, and the proposed action will improve the chemical addition process by streamlining the delivery, storage, and handling of chemicals used.

The installation of the storage tanks and pumps will significantly increase TRA-671's chemical storage capacity while reducing the number of deliveries required to maintain the chemical supply. In addition, the tank controllers will allow for the automation of chemical handling. In addition, the action will reduce emissions through significantly cutting the number of chemical deliveries to ATR. The proposed action includes the following activities:

- A. Install a sodium hypochlorite pump and controller to the sodium hypochlorite chemical addition system.
- B. Install storage tanks, piping, and associated supports.
- C. Install 120VAC circuits, junction boxes with terminal strips, and small pump control panels. The junction boxes and control panels include Amphenol connectors.
- D. Fabricate and install custom cables with Amphenol connectors.

Project scope includes removing components, such as chemical storage tanks, installed below grade.

SECTION C. Environmental Aspects or Potential Sources of Impact:

Air Emissions

Emissions typical of cutting/grinding/welding are expected. The emissions from this activity are not considered construction of a new emissions source.

The activity has the potential to generate fugitive dust.

Mobile sources such as generators, welders, and compressors may be used temporary (less than a year) by subcontractors at the construction site. These sources must meet Idaho Administrative Procedures Act (IDAPA) 58.01.01.625 visible emissions opacity requirements.

Chemicals currently used in the chemical addition system are covered in APAD INL-15-004 and subsequent information files. Any changes to these chemicals will require a new or revised APAD.

Disturbing Cultural or Biological Resources

Activities included in this EC have the potential to disturb cultural or biological resources as follows:

- Maintaining or repairing facilities, structures, equipment or processes
- Operating facilities, equipment, or processes.

Generating and Managing Waste

The proposed action has the potential to generate industrial (non-hazardous, non-radioactive) waste such as boxes, wood, insulations, paper, and some metals.

Releasing Contaminants

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

- Acquiring, using, storing and dispositioning chemicals
- Managing and dispositioning excess property and materials.

The algaecide used in this system, sodium hypochlorite, is a pesticide and must be stored in accordance with label instructions and regulatory requirements.

Using, Reusing, and Conserving Natural Resources

Activities addressed by this EC have the potential for use, reuse and conservation of natural resources related to the following:

- Generating landfill waste or construction and demolition wastes
- Generating recyclable materials
- Engaging in sustainable acquisition practices.

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: 10 CFR 1021, Appendix B to subpart D, item B1.5 "Existing steam plants and cooling water systems"

Justification: Project activities described in this EC are consistent with 10 CFR 1021, Appendix B to Subpart D, item 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: 11/04/19