

U.S. Department of Energy
Naval Reactors Laboratory Field Office
Knolls Laboratory
National Environmental Policy Act (NEPA) Categorical Exclusion (CX)
Determination Summary Form

Q14 Sprinkler System Upgrade Project

REFERENCE

10 CFR Part 1021, Department of Energy National Environmental Policy Act Implementation Procedures, Subpart D, Typical Classes of Actions

PROJECT SCOPE DISCUSSION

The project scope will upgrade the Q14 sprinkler system to meet exposed plastic design basis requirements by installing a fire pump and performing modifications to the Q14 sprinkler piping. The fire pump will be a pre-assembled skid system with enclosure diesel powered pump and associated diesel storage tank. The fire pump assembly will be located on a foundation pad in the grassy area northwest of Q14. Electrical work will include providing general power to the fire pump building and fire pump control/alarm wiring to a fire alarm panel in the Q14 mechanical room. An additional sprinkler piping cross-main will be installed in the Q14 rack storage area to reduce sprinkler piping pressure drop issues. It is anticipated that the heat exchanger used to cool the diesel powered fire pump will generate approximately 900 gallons per week of cooling water during weekly testing. The cooling water will be pumped from an associated sump into a large at grade storage tank. The collected water will be transported to a permitted New York State Pollutant Discharge Elimination System (SPDES) process/storm water outfall for discharge.

The fuel storage tank portion of the diesel fire pump will also be registered with the New York State Department of Environmental Conservation.

The project does not violate applicable regulatory requirements, require construction or major expansion of waste handling facilities, result in unpermitted releases of hazardous substances, or adversely affect environmentally sensitive resources, including wetlands. The project does not involve genetically engineered organisms or species. There are no extraordinary circumstances related to the proposed action. The project has not been segmented to meet the definition of a categorical exclusion and is not connected to other actions with potentially significant and/or cumulative impacts.

CONCLUSION

The Q14 Sprinkler System Upgrade Project is categorically excluded from additional NEPA documentation under 10 CFR1021 Subpart D, Appendix B, CX B1.15 and B2.2. Specifically, the categorical exclusions that apply are the following:

B1.15 Support buildings

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.

B2.2 *Building and equipment instrumentation*

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).

NRLFO Approval: _____ Date: _____
D. A. Delwiche CX Determination Date