

**U.S. Department of Energy
Naval Reactors Laboratory Field Office**

Knolls Laboratory

**National Environmental Policy Act (NEPA) Categorical Exclusion (CX)
Determination Summary Form**

FIRE PROTECTION WATER TANK PROJECT

REFERENCES

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

PROJECT SCOPE DISCUSSION

The current fire protection water supply for the Knolls Laboratory is provided by an existing water tower working in conjunction with the Town of Niskayuna, New York municipal water system. The water tower has a total capacity of 200,000 gallons and supports fire protection water, domestic (drinking) water, and other service water applications at the Site. The current fire protection water system for the Site does not meet all requirements and expectations for fire protection systems. Also, the existing water tower is dependent to a significant extent on the municipal water supply and is vulnerable to changing municipal water supply conditions.

The primary goal of the Fire Protection (FP) Water Tank Project is to design and construct a long-term solution to provide a highly reliable water supply for the Site's fire protection system with less reliance on the municipal water supply.

A new ground level, 225,000 gallon FP water supply tank will be designed and constructed to meet all applicable Naval Reactors Program requirements including specific National Fire Protection Association based requirements, New York State Fire Code, and the USDOE's Highly Protected Risk expectations to the maximum extent feasible (given certain constraints such as limiting water main pressures on existing legacy underground fire mains and the significant elevation difference between the upper and lower levels).

The FP water tank will be located near the northwest corner of Building Q14. The new tank will be maintained as a non-potable water source and will serve as a dedicated fire protection water supply for the Site. The new tank will tie into the existing fire pump inside the Building R1 Pump House.

The project does not violate applicable regulatory requirements, require construction or major expansion of waste handling facilities, result in unpermitted releases of hazardous substances, adversely affect historical properties, or 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 Fire Protection Water Tank Project meets the requirements to be categorically excluded (CX) from additional NEPA documentation under 10 CFR 1021 Subpart D, Appendix B, CX B1.15 and B2.5. Specifically, the categorical exclusions that apply are as follows:

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.

B2.5 Facility safety and environmental improvements

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 or 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 of 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).

NRLFO Approval: 
D. A. Delwiche

Date: 7-20-17
CX Determination Date