

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

**Naval Reactors Facility**

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

**Naval Reactors Facility (NRF) Fire Protection Upgrade Major Construction Project (MCP)**

**REFERENCE**

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

**PROJECT SCOPE DISCUSSION**

The goal and objective of the NRF Fire Protection Upgrade MCP is to upgrade the existing fire alarm system at NRF by replacing obsolescent equipment, resolving known code deficiencies, and eliminating system vulnerabilities using “good value” engineered solutions. “Good value” engineered solutions are those that: a) minimize cost of system installation, b) minimize cost of system operation and surveillance, c) maximize service life, d) maximize spare parts and technical service availability, and e) maximize ease of system operation.

The current site-wide fire alarm system, including most of the individual building fire alarm systems, are antiquated, susceptible to single point failure, and will not meet the future operational support needs and mission of NRF. NRF last performed a fire alarm signaling system upgrade in the early 1990’s and most of the notification system is 1970’s vintage coded gong/bell equipment. The existing fire alarm system does not comply with current commercial codes and standards, and the system will be increasingly more difficult to maintain as it becomes older. Investing in a new fire alarm system rather than continuing to maintain an older, antiquated system makes the most business sense. Spare parts and technical support for much of the existing equipment are becoming more difficult to obtain. In addition, there are a number of design deficiencies that exist in the current fire alarm system which make it vulnerable to single-point faults. Specifically, when a single-point fault occurs, it could affect or disable other fire protection and evacuation signaling devices (in cases of fires in multiple buildings) increasing the risk of personnel not being immediately notified to evacuate. The design, procurement, and installation of a more reliable fire alarm system are necessary to ensure the continued protection of personnel, equipment, and facilities. Construction activities for this project are anticipated to begin in Fiscal Year 2012 and end in Fiscal Year 2015.

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 NRF Fire Protection Upgrade MCP is categorically excluded from additional NEPA documentation under 10 CFR1021 Subpart D, Appendix B, B1.15, B1.16, B2.2, and B2.5. Specifically, the categorical exclusions that apply are the following:

#### B1.15 Siting/construction/operation of support buildings/support structures

Siting, construction (or modification), and operation of support buildings and support structures (including, but not limited to, trailers and prefabricated 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 those for office purposes; parking; cafeteria services; education and training; visitor reception; computer and data processing services; employee health services or recreation activities; routine maintenance activities; storage of supplies and equipment for administrative services and routine maintenance activities; security (including security posts); fire protection; and similar support purposes, but excluding facilities for waste storage activities, except as provided in other parts of this appendix.

#### B1.16 Removal of asbestos from buildings

Removal of asbestos-containing materials from buildings in accordance with 40 CFR part 61 (National Emission Standards for Hazardous Air Pollutants), subpart M (National Emission Standard for Asbestos); 40 CFR part 763 (Asbestos), subpart G (Asbestos Abatement Projects); 29 CFR part 1910, subpart I (Personal Protective Equipment), § 1910.134 (Respiratory Protection); subpart Z (Toxic and Hazardous Substances), § 1910.1001 (Asbestos, tremolite, anthophyllite and actinolite); and 29 CFR part 1926 (Safety and Health Regulations for Construction), subpart D (Occupational Health and Environmental Controls), § 1926.58 (Asbestos, tremolite, anthophyllite, and actinolite), other appropriate Occupational Safety and Health Administration standards in title 29, chapter XVII of the CFR, and appropriate state and local requirements, including certification of removal contractors and technicians.

#### B2.2 Installation of/improvements to building/equipment instrumentation (remote controls, emergency warning systems, monitors)

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, announcement and emergency warning systems, criticality and radiation monitors and alarms, and safeguards and security equipment).

#### B2.5 Safety and environmental improvements of a facility, replacement/upgrade of facility components

Safety and environmental improvements of a facility, including 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 may 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 if there is no evidence of leakage, based on testing that meets performance requirements in 40 CFR part 280, subpart D (40 CFR part 280.40). This includes activities taken under RCRA, subtitle I; 40 CFR part 265, subpart J; 40 CFR part 280, subparts B, C, and D; and other applicable state, Federal and local

requirements for underground storage tanks. These actions do not include rebuilding or modifying substantial portions of a facility, such as replacing a reactor vessel.

Approval: Originally signed by  
Mike Gardner Date: Originally signed on  
September 15, 2010  
CX Determination Date