

**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) Control System Upgrades/Modifications to the Cask Shipping and Receiving Facility (CSRF) to Support the Buffering of M-290 Shipping Containers with A1G Spent Nuclear Fuel Assemblies Project**

**REFERENCE**

10 CFR Part 1021, Department of Energy, National Environmental Policy Act Implementing Procedures, Subpart D, Typical Classes of Actions, Appendix B (to Subpart D of Part 1021) – Categorical Exclusions Applicable to Specific Agency Actions

**PROJECT SCOPE DISCUSSION**

The scope of the *Naval Reactors Facility (NRF) Control System Upgrades/Modifications to the Cask Shipping and Receiving Facility (CSRF) to Support the Buffering of M-290 Shipping Containers with A1G Spent Nuclear Fuel Assemblies Project* covers temporary control system upgrades and modifications at the CSRF so the facility can operate as a radiological facility to support unloading A1G spent nuclear fuel assemblies from M290 shipping containers, and repackaging of the fuel assemblies into canisters and protective overpacks for temporary storage (i.e., buffering) until the fuel assemblies can be processed at a later date in the Naval Spent Fuel Handling Facility. Buffering of unprocessed A1G spent nuclear fuel assemblies at NRF is necessary to support multiple planned defueling of U.S. Navy aircraft carriers at the shipyard.

The CSRF was specifically constructed to handle and manage radioactive naval spent nuclear fuel from M-290 shipping containers. Although the facility was not originally designed or constructed to operate as a radiological work facility, the original design included building features to accommodate future conversion of the facility to support radiological operations. Upgrades and modifications to the CSRF will be required to support A1G fuel assembly buffering since the unloading operations in the CSRF will involve work with loose surface radiological contamination.

The scope of the *Naval Reactors Facility (NRF) Control System Upgrades/Modifications to the Cask Shipping and Receiving Facility (CSRF) to Support the Buffering of M-290 Shipping Containers with A1G Spent Nuclear Fuel Assemblies Project* includes:

- deployment and use of trailers and prefabricated modular buildings and structures at the CSRF,
- installation or relocation of equipment to the CSRF to provide the control system upgrades and modifications,

- improvements to prevent air leaks and HVAC and air handling system modifications,
- installation and improvements to building and equipment instrumentation including remote monitoring capabilities, alarm and surveillance systems, fire detection/protection systems, and announcement/emergency warning systems, etc.,
- installation and improvements to radiation monitoring devices and collection and exhaust systems,
- activities needed to qualify equipment for use or improve systems reliability and to augment information on safety-related systems components (i.e., testing of radiation treatment systems for air and water),
- improvements to facility air filtration systems to address radiological air emissions and installation of aboveground or belowground tanks and related piping needed for radioactive water treatment and management, and
- improvements to environmental monitoring and control systems in an existing building or structure.

The project does not violate applicable regulatory requirements, require construction or major expansion of waste handling facilities, result in unpermitted release of hazardous substances, or adversely affect environmentally sensitive resources, including wetlands. The project does not involve genetically engineered organisms or species. There are also no extraordinary circumstances related to the proposed action. Lastly, 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 Naval Reactors Facility (NRF) Control System Upgrades/Modifications to the Cask Shipping and Receiving Facility (CSRf) to Support the Buffering of M-290 Shipping Containers with A1G Spent Nuclear Fuel Assemblies Project* is categorically excluded from the additional NEPA documentation under 10 CFR 1021 Subpart D, Appendix B, as follows:

B1.15, *Support Buildings*, includes "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 weapon activities and waste storage

activities, such as activities covered in B.1.10, B1.29, B1.35, B2.6, B6.2, B6.4, B6.5, B6.6, and B6.10 of this appendix.”

B1.31, *Installation or Relocation of Machinery and Equipment*, includes “Installation or relocation and operation of machinery and equipment (including, but not limited to, laboratory equipment, electronic hardware, manufacturing machinery, maintenance equipment, and health and safety equipment), provided that the uses of the installed or relocated items are consistent with the general missions of the receiving structure. Covered actions include modifications to an existing building, within or contiguous to a previously disturbed or developed area, that are necessary for equipment installation and relocation. Such modifications would not appreciably increase the footprint or height of the existing building or have the potential to cause significant changes to the type and magnitude of environmental impacts.”

B2.1, *Workplace Enhancements*, includes “Modifications within or contiguous to an existing structure, in a previously disturbed or developed area, to enhance workplace habitability (including, but not limited to, installation or improvements to lighting, radiation shielding, or heating/ventilating/air conditioning and its instrumentation, and noise reduction.”

B2.2, *Building and Equipment Instrumentation*, includes “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.”

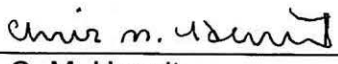
B2.3, *Personal Safety and Health Equipment*, includes “Installation of, or improvements to, equipment for personnel safety and health (including but not limited to, eye washes, safety showers, radiation monitoring devices, fume hoods, and associated collection and exhaust systems), provided that the covered actions would not have the potential to cause a significant increase in emissions.”

B2.4, *Equipment Qualification*, includes “Activities undertaken to (1) qualify equipment for use or improve systems reliability or (2) augment information on safety-related systems components. These activities include, but are not limited to, transportation container qualification testing, crane and lift-gear certification or recertification testing, high efficiency particulate air filter testing and certification, stress tests (such as ‘burn-in’ testing of electrical components and leak testing), and calibration of sensor or diagnostic equipment.”

B2.5, *Safety and Environmental Improvements*, includes “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)."

B6.3, *Improvements to Environmental Control Systems*, includes "Improvements to environmental monitoring and control systems of an existing building or structure (such as changes to scrubbers in air quality control systems or ion-exchange devices and other filtration processes in water treatment systems), provided that during subsequent operations (1) Any substance collected by the environmental control systems would be recycled, released, or disposed of within existing permitted facilities and (2) there are applicable statutory or regulatory requirements or permit conditions for disposal, release, or recycling or any hazardous substance or CERCLA-excluded petroleum or natural gas products that are collected or released in increased quantity or that were not previously collected or released."

NRLFO Approval:   
C. M. Henvit

Date: 2/29/2024  
CX Determination Date