

**U.S. Department of Energy
Naval Reactors Representative's Office
Kesselring Site**

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

**KESSELRING SITE MARF DEFUELING AND ASSOCIATED DEFUELING FACILITY
PROJECT**

REFERENCE

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

PROJECT SCOPE DISCUSSION

The scope of these activities includes the final defueling of the Modifications and Additions to Reactor Facilities (MARF) prototype reactor and providing the defueling facility necessary to support the defueling.

The MARF prototype was placed in operation in 1976 and underwent final shutdown in March 2019 after which it was placed in a layup condition. A Defueling Layup Availability (DLA) is planned to begin in November 2024 and be completed in November 2025. The primary purpose of the DLA is to defuel the prototype. The spent nuclear fuel removed from the MARF prototype will be placed into an M-140 shipping container and shipped off site; therefore, there will be no spent nuclear fuel stored at the Kesselring Site. The defueling work will be conducted in accordance with stringent Naval Nuclear Propulsion Program requirements for controlling defueling work, handling radioactive materials and ensuring compliance with applicable environmental, safety, and health standards. Subsequent to completing the DLA, the MARF prototype will be placed in a deactivated status where it can remain until ultimate decontamination and decommissioning (D&D).

The defueling facility (DF) portion of the project consists of the construction of a single, high bay structure over and adjacent to the MARF prototype. This facility supports systems installations, infrastructure upgrades, and modifications necessary to support defueling in accordance with Program requirements. The DF will provide the necessary space and equipment to facilitate defueling, utilizing new construction and reused components where applicable. Support systems, such as electric and compressed air will be installed. Interference removals will be required (existing access stair tower, stair well, on-hull steel) along with underground and above ground utilities relocations and removals. A portion of the hillside to the south of MARF will be modified to extend the existing retaining wall to provide paved areas for M-140 transport ingress and egress from the DF.

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

Defueling

Defueling is categorically excluded from additional NEPA documentation under 10 CFR 1021 Subpart D, Appendix B, CX B1.3, B1.15, B1.16, B1.17, B1.23, B1.28, B1.31, B1.33, and B1.34. Specifically, the categorical exclusions that apply are as follows:

B1.3 Routine maintenance

Routine maintenance activities and custodial services for buildings, structures, rights-of-way, infrastructure (including, but not limited to, pathways, roads, and railroads), vehicles and equipment, and localized vegetation and pest control, during which operations may be suspended and resumed, provided that the activities would be conducted in a manner in accordance with applicable requirements. Custodial services are activities to preserve facility appearance, working conditions, and sanitation (such as cleaning, window washing, lawn mowing, trash collection, painting, and snow removal). Routine maintenance activities, corrective (that is, repair), preventative, and predictive, are required to maintain and preserve buildings, structures, infrastructures, and equipment in a condition suitable for a facility to be used for its designated purpose. Such maintenance may occur as a result of severe weather (such as hurricanes, floods, and tornados), wildfires, and other such events. Routine maintenance may result in replacement to the extent that replacement is in-kind and is not a substantial upgrade or improvement. In-kind replacement includes installation of new components to replace outmoded components, provided that the replacement does not result in a significant change in the expected useful life, design capacity, or function of the facility. Routine maintenance does not include replacement of a major component that significantly extends the original intended useful life of a facility (for example, it does not include replacement of a reactor vessel near the end of its useful life). Routine maintenance activities include, but are not limited to:

- (a) Repair or replacement of facility equipment, such as lathes, mills, pumps, and presses;
- (b) Door and window repair or replacement;
- (c) Wall, ceiling, or floor repair or replacement;
- (d) Reroofing;
- (e) Plumbing, electrical utility, lighting, and telephone service repair or replacement;
- (f) Routine replacement of high-efficiency particulate air filters;
- (g) Inspection and/or treatment of currently installed utility poles;
- (h) Repair of road embankments;
- (i) Repair or replacement of fire protection sprinkler systems;
- (j) Road and parking area resurfacing, including construction of temporary access to facilitate resurfacing, and scraping and grading of unpaved surfaces;
- (k) Erosion control and soil stabilization measures (such as reseeding, gabions, grading, and revegetation);
- (l) Surveillance and maintenance of surplus facilities in accordance with DOE Order 435.1 "Radioactive Waste Management," or its successor;
- (m) Repair and maintenance of transmission facilities, such as replacement of conductors of the same nominal voltage, poles, circuit breakers, transformers, capacitors,

- crossarms, insulators, and downed powerlines, in accordance, where appropriate, with 40 CFR part 761 (Polychlorinated Biphenyls Manufacturing, Processing, Distribution in Commerce, and Use Prohibitions) or its successor;
- (n) Routine testing and calibration of facility components, subsystems, or portable equipment (such as control valves, in-core monitoring devices, transformers, capacitors, monitoring wells, lysimeters, weather stations, and flumes);
 - (o) Routine decontamination of the surfaces of equipment, rooms, hot cells, or other interior surfaces of buildings (by such activities as wiping with rags, using strippable latex, and minor vacuuming), and removal of contaminated intact equipment and other material (not including spent nuclear fuel or special nuclear material in nuclear reactors); and
 - (p) Removal of debris.

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.

B1.16 Asbestos Removal

Removal of asbestos-containing materials from buildings in accordance with applicable requirements (such as 40 CFR part 61, "National Emission Standards for Hazardous Air Pollutants"; 40 CFR part 763, "Asbestos"; 29 CFR part 1910, subpart I, "Personal Protective Equipment"; and 29 CFR part 1926, "Safety and Health Regulations for Construction"; and appropriate state and local requirements, including certification of removal contractors and technicians).

B1.17 Polychlorinated biphenyl removal

Removal of polychlorinated biphenyl (PCB)-containing items (including, but not limited to, transformers and capacitors), PCB-containing oils flushed from transformers, PCB-flushing solutions, and PCB-containing spill materials from buildings or other aboveground locations in accordance with applicable requirements (such as 40 CFR part 761).

B1.23 Demolition and Disposal of Buildings

Demolition and subsequent disposal of buildings, equipment, and support structures (including, but not limited to, smoke stacks and parking lot surfaces), provided that there would be no

potential for release of substances at a level, or in a form, that could pose a threat to public health or the environment.

B1.28 Placing a facility in an environmentally safe condition

Minor activities that are required to place a facility in an environmentally safe condition where there is no proposed use for the facility. These activities would include, but are not limited to, reducing surface contamination, and removing materials, equipment or waste (such as final defueling of a reactor, where there are adequate existing facilities for the treatment, storage, or disposal of the materials, equipment or waste). These activities would not include conditioning, treatment, or processing of spent nuclear fuel, high-level waste, or special nuclear materials.

B1.31 Installation or relocation of machinery and equipment

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 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.

B1.33 Stormwater runoff control

Design, construction, and operation of control practices to reduce stormwater runoff and maintain natural hydrology. Activities include, but are not limited to, those that reduce impervious surfaces (such as vegetative practices and use of porous pavements), best management practices (such as silt fences, straw wattles, and fiber rolls), and use of green infrastructure or other low impact development practices (such as cisterns and green roofs).

B1.34 Lead-based paint containment, removal, and disposal

Containment, removal, and disposal of lead-based paint in accordance with applicable requirements (such as provisions relating to the certification of removal contractors and technicians at 40 CFR part 745, "Lead-Based Paint Poisoning Prevention In Certain Residential Structures").

NRRO Approval:


H. S. Miller

Date:

26 OCT 2021
CX Determination Date