

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

Knolls Laboratory

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

**KNOLLS LABORATORY SECURITY UPGRADE MAJOR CONSTRUCTION
PROJECT AND WATER TOWER DEMOLITION PROJECT**

REFERENCE

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 Knolls Laboratory (Site) Security Upgrade Major Construction Project (Project) encompasses the installation of various upgrades to Site security buildings and infrastructure that is over 65 years old. The upgrades will improve Site physical security and operational efficiency. Existing security infrastructure and buildings will be remediated and demolished as part of the Project.

The Project scope consists of remediating the southernmost office area of Building A1 of asbestos liabilities, so that the space can be renovated and house Security Operations personnel. Buildings Z1 and A5 currently house various aspects of Security Operations. Building Z1 will undergo asbestos remediation, potentially petroleum clean-up and disposal, and will be demolished to make new space available for a new Site Entrance Facility, Building A11. Concurrently with the Project, the existing Z6 Water Tower will also be demolished to make space for Building A11 and will require proper disposal of lead paint and mercury-containing materials, as well as asbestos remediation. The existing Site Entrance Facility, Building A5, will be remediated of any potential asbestos and demolished once Building A11 construction is complete. The Project scope also includes upgrading the existing lighting system to an LED lighting system with replacement of existing conductors, and replacement of the southern perimeter chain-link fencing with modernized tubular fencing.

The projects do 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 projects do not involve genetically engineered organisms or species. There are no extraordinary circumstances related to the proposed actions. The projects have 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 Knolls Laboratory Security Upgrade Major Construction Project and Water Tower Demolition Project are categorically excluded from additional NEPA documentation under 10 CFR Part 1021, Subpart D, Appendix B, B1.3, B1.7, B1.11, B1.15, B1.16, B1.17, B1.19, B1.23, B1.27, B1.33, B1.34, B2.2, B3.1, and B6.1. Specifically, the categorical exclusions that apply are the following:

B1.3 Routine maintenance

Routine maintenance activities and custodial services for buildings, structures, rights-of-way, infrastructures (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), preventive, 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 originally intended useful life of a facility (for example, it does not include the 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.

B1.7 Electronic equipment

Acquisition, installation, operation, modification, and removal of electricity transmission control and monitoring devices for grid demand and response, communication systems, data processing equipment, and similar electronic equipment.

B1.11 Fencing

Installation of fencing, including, but not limited to border marking, that would not have the potential to significantly impede wildlife population movement (including migration) or surface water flow.

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).

B1.19 Microwave, meteorological, and radio towers

Siting, construction, modification, operation, and removal of microwave, radio communication, and meteorological towers and associated facilities, provided that the towers and associated facilities would not be in a governmentally designated scenic area (see B(4)(iv) of this appendix) unless otherwise authorized by the appropriate governmental entity.

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.

B1.27 Disconnection of utilities

Activities that are required for the disconnection of utility services (including, but not limited to, water, steam, telecommunications, and electrical power) after it has been determined that the continued operation of these systems is not needed for safety.

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").

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).

B3.1 Site characterization and environmental monitoring

Site characterization and environmental monitoring (including, but not limited to, siting, construction, modification, operation, and dismantlement and removal or otherwise proper closure (such as of a well) of characterization and monitoring devices, and siting, construction, and associated operation of a small-scale laboratory building or renovation of a room in an existing building for sample analysis). Such activities would be designed in conformance with applicable requirements and use best management practices to limit the potential effects of any resultant ground disturbance. Covered activities include, but are not limited to, site characterization and environmental monitoring under CERCLA and RCRA. (This class of actions excludes activities in aquatic environments. See B3.16 of this appendix for such activities.) Specific activities include, but are not limited to:

- (a) Geological, geophysical (such as gravity, magnetic, electrical, seismic, radar, and temperature gradient), geochemical, and engineering surveys and mapping, and the establishment of survey marks. Seismic techniques would not include large-scale reflection or refraction testing;

- (b) Installation and operation of field instruments (such as stream-gauging stations or flow-measuring devices, telemetry systems, geochemical monitoring tools, and geophysical exploration tools);
- (c) Drilling of wells for sampling or monitoring of groundwater or the vadose (unsaturated) zone, well logging, and installation of water-level recording devices in wells;
- (d) Aquifer and underground reservoir response testing;
- (e) Installation and operation of ambient air monitoring equipment;
- (f) Sampling and characterization of water, soil, rock, or contaminants (such as drilling using truck- or mobile-scale equipment, and modification, use, and plugging of boreholes);
- (g) Sampling and characterization of water effluents, air emissions, or solid waste streams;
- (h) Installation and operation of meteorological towers and associated activities (such as assessment of potential wind energy resources);
- (i) Sampling of flora or fauna; and
- (j) Archeological, historic, and cultural resource identification in compliance with 36 CFR part 800 and 43 CFR part 7.

B6.1 Cleanup actions

Small-scale, short-term cleanup actions, under RCRA, Atomic Energy Act, or other authorities, less than approximately 10 million dollars in cost (in 2011 dollars), to reduce risk to human health or the environment from the release or threat of release of a hazardous substance other than high-level radioactive waste and spent nuclear fuel, including treatment (such as incineration, encapsulation, physical or chemical separation, and compaction), recovery, storage, or disposal of wastes at existing facilities currently handling the type of waste involved in the action. These actions include, but are not limited to:

- (a) Excavation or consolidation of contaminated soils or materials from drainage channels, retention basins, ponds, and spill areas that are not receiving contaminated surface water or wastewater, if surface water or groundwater would not collect and if such actions would reduce the spread of, or direct contact with, the contamination;
- (b) Removal of bulk containers (such as drums and barrels) that contain or may contain hazardous substances, pollutants, contaminants, CERCLA-excluded petroleum or natural gas products, or hazardous wastes (designated in 40 CFR part 261 or applicable state requirements), if such actions would reduce the likelihood of spillage, leakage, fire, explosion, or exposure to humans, animals, or the food chain;
- (c) Removal of an underground storage tank including its associated piping and underlying containment systems in accordance with applicable requirements (such as RCRA, subtitle I; 40 CFR part 265, subpart J; and 40 CFR part 280, subparts F and G) if such action would reduce the

likelihood of spillage, leakage, or the spread of, or direct contact with, contamination;

- (d) Repair or replacement of leaking containers;
- (e) Capping or other containment of contaminated soils or sludges if the capping or containment would not unduly limit future groundwater remediation and if needed to reduce migration of hazardous substances, pollutants, contaminants, or CERCLA-excluded petroleum and natural gas products into soil, groundwater, surface water, or air;
- (f) Drainage or closing of man-made surface impoundments if needed to maintain the integrity of the structures;
- (g) Confinement or perimeter protection using dikes, trenches, ditches, or diversions, or installing underground barriers, if needed to reduce the spread of, or direct contact with, the contamination;
- (h) Stabilization, but not expansion, of berms, dikes, impoundments, or caps if needed to maintain integrity of the structures;
- (i) Drainage controls (such as run-off or run-on diversion) if needed to reduce offsite migration of hazardous substances, pollutants, contaminants, or CERCLA-excluded petroleum or natural gas products or to prevent precipitation or run-off from other sources from entering the release area from other areas;
- (j) Segregation of wastes that may react with one another or form a mixture that could result in adverse environmental impacts;
- (k) Use of chemicals and other materials to neutralize the pH of wastes;
- (l) Use of chemicals and other materials to retard the spread of the release or to mitigate its effects if the use of such chemicals would reduce the spread of, or direct contact with, the contamination;
- (m) Installation and operation of gas ventilation systems in soil to remove methane or petroleum vapors without any toxic or radioactive co-contaminants if appropriate filtration or gas treatment is in place;
- (n) Installation of fences, warning signs, or other security or site control precautions if humans or animals have access to the release; and
- (o) Provision of an alternative water supply that would not create new water sources if necessary immediately to reduce exposure to contaminated household or industrial use water and continuing until such time as local authorities can satisfy the need for a permanent remedy.

NRLFO
Approval:



D. A. Delwiche

Date: June 14, 2024

CX Determination Date