

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

**Knolls Laboratory**

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

**BUILDING T3 CHEMISTRY LABORATORY AND RADIOLOGICAL HEALTH  
FACILITY CONSTRUCTION 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 scope of the Knolls Laboratory - Chemistry Laboratory and Radiological Health Facility (Building T3) Construction Project includes the design and construction of an approximately 43,000 square foot, multi-story state-of-the-art laboratory building to collocate various Physical and Analytical Chemistry, Radiochemistry, and Radiological Health groups in a single building.

The project will include the removal of the existing abandoned underground utilities within the footprint of the new building, and the connection of the new building to the site's existing utility infrastructure. The soil in the area where the building is to be constructed is known to contain various low-level contaminants. The contaminants will be remediated, as necessary, to meet State-approved cleanup criteria.

The laboratory spaces will provide an enclosed, climate controlled environment specifically designed and constructed to support thermally and vibration-sensitive equipment such as electron microscopes, ion/electron beam scanning machines as well as radiological testing and calibration devices.

Building T3 will include professional office space for laboratory personnel, support utilities, restrooms, and building equipment space to accommodate the Knolls Laboratory's physical chemistry, analytical chemistry, radiochemistry and radiological health operations with a radiological source calibration range. The building will also provide a full complement of laboratory equipment such as fume hoods, sample preparation components and laboratory furniture such as work benches, storage cabinets and lab sinks.

Once the building construction is completed, the area immediately surrounding the building will be restored with sidewalks, curbing and landscaping, and laboratory

personnel along with laboratory equipment will be systematically relocated from existing facilities into the new building. As part of the equipment relocations, a portion of the A3-119A annex (vintage 1986) that is connected to the existing A3 building must be demolished and restored to permit relocation of a dosimetry device to the new building.

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. This 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 Knolls Laboratory - Chemistry Laboratory and Radiological Health Facility Construction Project is categorically excluded from additional NEPA documentation under 10 CFR Part 1021, Subpart D, Appendix B, B1.15, B1.16, B1.17, B1.23, B1.31, B1.33, B1.34, B3.6 and B6.1. Specifically, the categorical exclusions that apply are the following:

### *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"; 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.

### *B1.31 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").

### *B3.6 Small-scale research and development, laboratory operations, and pilot projects*

Siting, construction, modification, operation, and decommissioning of facilities for small-scale research and development projects; conventional laboratory operations (such as preparation of chemical standards and sample analysis); and small-scale pilot projects (generally less than 2 years) frequently conducted to verify a concept before demonstration actions, provided that construction or modification would be within or contiguous to a previously disturbed or developed area (where active utilities and currently used roads are readily accessible). Not included in this category are demonstration actions, meaning actions that are undertaken at a scale to show whether a technology would be viable on a larger scale and suitable for commercial deployment.

### *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 17, 2020

CX Determination Date