



# U.S. Department of Energy

## Categorical Exclusion Determination Form

**Proposed Action Title:** CATEGORICAL EXCLUSION (CX) DETERMINATION FOR MAINTENANCE ACTIVITIES (CX-GEN-011)

**Program or Field Office:** Oak Ridge Office, Oak Ridge, Tennessee

**Location(s) (City/County/State):** Oak Ridge, TN; Berkeley, CA; Menlo Park, CA; Newport News, VA; and other DOE-operated facilities and ancillary areas associated with these sites, programs, and projects

**Proposed Action Description:**

The proposed actions comprise maintenance support services frequently and routinely requested for operational support of DOE facilities and properties. While these actions are intended to maintain current operations, they would not substantially extend the useful life of a facility or allow for substantial upgrade or improvement. Such major renovations, upgrades, or other large-scale improvements would be appropriately documented through the National Environmental Policy Act (NEPA) process. The following is a listing of maintenance support services frequently and routinely requested for operational support of DOE facilities and properties:

1. Direct replacement or removal of equipment and/or facility components.
2. Maintenance, installation, relocation, removal, and repair of equipment, facility components, and associated systems, which include, but are not limited to, the following:
  - A. Machine shop equipment such as jib cranes, motors, valves, shredders, compressors, pumps, castors, power supplies, lathes, saws, shears, presses, welding equipment, dust collectors, dryboxes, and vent systems.
  - B. Processing, forming, and recovery equipment such as presses, rolling mills, tanks, ultrasonic cleaners, heat exchangers, ovens, furnaces, brazing and sintering equipment, cryogenic equipment, salt baths, centrifuges, conveyors, piping, autoclaves, hydroforms, forming presses, separators, humidifiers, vacuum pumps, molding and extruding equipment, filtration equipment, grinders, mills, and supercritical cleaning apparatus.
  - C. Inspection, monitoring, laboratory, and analytical equipment such as calorimeters, temperature and humidity chambers, refrigerators, freezers, blenders, grinders, polishers, blasters, x-ray generators, diffractometers, spectrometers, spectrographs, spectrophotometers, chromatographs, densitometers, lasers, microscopes, balances, process controllers, indicating/recording devices, ultrasonic and plasma generating equipment, analyzers, viscometers, and measuring equipment.
  - D. Control equipment such as weirs, skimmers, glove boxes, hoods, stacks, filters, filter housings, fans, exhausts, bag houses, precipitators, and scrubbers.
3. Maintenance, repair, relocation, modification, and installation of utility systems including, but not limited to, the following:
  - A. Water systems
    1. cooling water
    2. steam and condensate lines
    3. potable and process
    4. storm sewer and drainage
    5. demineralizer
    6. sanitary sewers
    7. fire protection systems
    8. plumbing
  - B. Supplied air, gases, and liquid piping distribution systems including nitrogen, argon, helium, oxygen, propane, natural gas, and cryogenic piping systems, as well as equipment for gas cylinders.
  - C. Electrical systems
    1. switchyards
    2. building conduit, wiring, and lighting
    3. emergency lighting
    4. circuit and wiring maintenance
    5. non-polychlorinated biphenyl transformers, utility poles, conductors, crossarms, insulators, circuit breakers, capacitors, and transmission lines

D. Communications and computer systems

1. public address
2. VAX, FAX, computer and peripheral
3. phones and facsimile equipment
4. broadband and optical networks
5. weather monitoring

E. Security systems such as computer security, detection, monitoring, surveillance, and alarm systems, including doors, walls, barriers, barricades, cameras, monitors, and shields.

4. Installation, repair, and modification of heating, ventilating, and air conditioning systems and associated filtration systems.
5. Maintenance, repair, installation, or direct replacement associated with structures or buildings, including elevators, cranes, lifts, hoists, doors, ceilings, walls, windows, floors, floor coverings, painting, siding, roofing, and the mounting and hanging of wall items.
6. Routine service activities including the following:
  - A. mow and trim grass, shrubs, and trees, including removal of dead and/or fallen trees
  - B. vegetation management, including planting native grasses and control of invasive species
  - C. routine landscaping, revegetation, devegetation, and erosion control activities
  - D. small-scale use of pesticides and herbicides, in accordance with applicable regulations
  - E. planned burns for ecosystem enhancements
  - F. wildlife management activities, including managed hunts, removal/relocation of animals, and pest control
  - G. janitorial, custodial, and housekeeping activities
  - H. preventive and corrective actions required to maintain and preserve buildings, structures, and equipment in a condition suitable for fulfillment of their designated purpose
  - I. assemble, uncrate, move, and install furniture and equipment
  - J. maintenance and repair of roads, road embankments, road drainage systems, sidewalks, and parking lots
  - K. snow removal, including preparation, storage, and application of brine, sand, gravel, etc.
  - L. maintenance and repair of vehicles and heavy equipment which includes fuel transporting and dispensing
  - M. maintenance of safes, vaults, and locks
  - N. maintenance and repair of industrial machinery
  - O. maintenance, repair, and installation of fencing
  - P. fabrication and installation of indoor and outdoor signs
  - Q. construction of scaffolding
  - R. calibration, testing, repair, and maintenance of facility components, instrumentation, and equipment
  - S. fabrication of tooling, fixtures, and parts used with equipment and/or structures for experimental work
  - T. routine decontamination of tools, rooms, surfaces, and equipment and removal of contaminated intact equipment and other materials where the action is not part of a decommissioning project
  - U. routine on-site transfer of liquid wastes from tanks and drums to existing permitted/approved facilities for neutralization, treatment, and/or storage
  - V. maintenance of hazard-prevention equipment, including grounding of equipment and cabinets and mounting fire extinguishers
  - W. maintenance, including tightness testing and repair, of storage tanks and associated piping
7. Maintenance support activities required to maintain environment, safety, and health standards, including the following:
  - A. maintenance, repair, replacement, relocation, fabrication, installation, and modification of safety railings, machine guards, hand rails, machine and belt guards, guard rails, stairs, ladders, and frames
  - B. installation of nonskid surfaces and anchoring of floor mats
  - C. grounding of structures and equipment
  - D. installation and repair of eye washes, safety showers, and radiation monitoring devices
  - E. maintenance, repair, or replacement of equipment used in current operations designed to maintain compliance with permits and regulations
8. Maintenance of waste treatment, storage, and disposal facilities, including the following:
  - A. maintenance of landfills
  - B. maintenance, repair, or replacement of liquid retention tanks, dikes, and associated piping
  - C. maintenance or repair of lagoons, quarries, and basins
  - D. maintenance of mixed, solid, liquid, radioactive, and inert waste storage areas
  - E. maintenance of temporary waste holding areas for routine activities
  - F. support of spill cleanup activities
9. Maintenance of surplus facilities in accordance with DOE Order 435.1 Change 1 (Radioactive Waste Management).

10. Maintenance and repair of environmental monitoring systems (e.g., flow meters, weirs, stilling wells, and air sampling devices).
11. Groundwater monitoring well maintenance that would include maintenance and repair or replacement of well caps, hasps, locks, protective casings, posts, and concrete pads. Well maintenance would also include additional well development to remove incrustation and sediment accumulations, well logging, and regrading/repaving of access roads to maintain access to well sites.
12. Maintenance of existing structures at sewage treatment and groundwater treatment facilities.
13. Maintenance and repair of ventilation off-gas scrubbing, absorption, and filtration systems.
14. Maintenance and repair of office equipment, including printers, scanners, laser printers, copiers, cameras, and phototypesetters.
15. Routine decontamination of tools, rooms, hot cells, equipment, and other interior surfaces and removal of contaminated intact equipment and other materials where the action is not part of a decommissioning project.
16. Routine paving of gravel parking lots and roads.
17. Surveillance and maintenance associated with storage of cylinders containing uranium hexafluoride at facilities designated for their storage.
18. Small-scale, routine open burning of cleared woody brush from landscape maintenance activities, in accordance with approved permits, which will not occur in sensitive areas such as archaeological or historic sites and which will have no impact on (a) habitats of any threatened, endangered, or other rare wildlife species of special concern; (b) floodplains; or (c) wetlands.
19. Activities that would be required for disconnecting utility services such as water, steam, telecommunications, and electrical power after it has been determined that continued operation of these systems would not be needed for safety purposes.
20. Establishment and maintenance of a temporary spoil storage area of excess earthen material, gravel, or asphalt for reuse.
21. Actions to conserve energy, demonstrate potential energy conservation, and promote energy-efficiency that do not increase the indoor concentrations of potentially harmful substances. Covered actions include, but are not limited to: programmed lowering of thermostat settings, placement of timers on hot water heaters, installation of solar hot water systems, installation of efficient lighting, improvements in generator efficiency and appliance efficiency ratings, development of energy-efficient manufacturing or industrial practices, and small-scale conservation and renewable energy research and development and pilot projects. The actions could involve building renovations or new structures in commercial, residential, agricultural, or industrial sectors. These actions do not include rulemakings, standard-settings, or proposed DOE legislation.

Any wastes generated as a result of maintenance activities would be acceptable for disposal in existing facilities. The proposed action would be evaluated before implementation to identify options to reduce or eliminate generation of waste materials.

The proposed maintenance actions that would take place on the Oak Ridge Reservation (ORR) have been reviewed in accordance with the Cultural Resource Management Plan (CRMP) or applicable sections in a ratified Programmatic Agreement document and would not result in an adverse effect to historic properties included or eligible for inclusion in the National Register of Historic Places (National Register). If the proposed ORR actions would have an adverse effect on properties included or eligible for inclusion in the National Register, DOE would consult with the State Historic Preservation Officer (SHPO) and initiate actions specified in procedures set forth in the Advisory Council's regulations in 36 CFR Part 800.

For sites other than the ORR, DOE would follow the Section 106 process and would consult with the respective SHPO, as appropriate.

Should the proposed routine maintenance activities involve ground disturbances at locations where an archeological survey had not been conducted or take place at previously disturbed locations where the potential exists to exceed the depth of previous ground disturbances, DOE would consult with the SHPO to determine whether an archeological survey is warranted prior to initiating the proposed activities.

To ensure that sensitive resources are protected, existing maps and surveys/studies on threatened and endangered species, wetlands and floodplains, and historically sensitive areas would be used to locate these areas. In addition, personnel responsible for identifying these resources would be consulted and, if warranted, additional surveys and walkovers would be conducted to confirm or update available information.

No known extraordinary circumstances would be associated with these actions that might affect the significance of the environmental effects of the proposed action based on past similar actions. These actions would not be connected to other actions with potentially significant impacts or related to other proposed actions with cumulatively significant impacts; they would meet the conditions that are integral elements of the classes of actions which may be categorically excluded from further NEPA documentation. Should the action not meet the conditions for CX consideration, a separate NEPA document would be prepared and submitted to DOE-ORO for review and approval.

Although an action might fall under the category of "routine maintenance," a separate NEPA review would be performed and documented should the action or related/cumulative effect of the action have the potential to result in an unusual or significant impact to the environment.

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**Categorical Exclusion(s) Applied:**

B1.3 - Routine maintenance  
B1.27 - Disconnection of utilities  
B2.1 - Workplace enhancements  
B2.2 - Building and equipment instrumentation  
B2.3 - Personnel safety and health equipment  
B5.1 - Actions to conserve energy

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For the complete DOE National Environmental Policy Act regulations regarding categorical exclusions, including the full text of each categorical exclusion, see Subpart D of 10 CFR Part 1021.

Regulatory Requirements in 10 CFR 1021.410(b): (See full text in regulation)

The proposal fits within a class of actions that is listed in Appendix A or B to 10 CFR Part 1021, Subpart D.

To fit within the classes of actions listed in 10 CFR Part 1021, Subpart D, Appendix B, a proposal must be one that would not: (1) threaten a violation of applicable statutory, regulatory, or permit requirements for environment, safety, and health, or similar requirements of DOE or Executive Orders; (2) require siting and construction or major expansion of waste storage, disposal, recovery, or treatment facilities (including incinerators), but the proposal may include categorically excluded waste storage, disposal, recovery, or treatment actions or facilities; (3) disturb hazardous substances, pollutants, contaminants, or CERCLA-excluded petroleum and natural gas products that preexist in the environment such that there would be uncontrolled or unpermitted releases; (4) have the potential to cause significant impacts on environmentally sensitive resources, including, but not limited to, those listed in paragraph B(4) of 10 CFR Part 1021, Subpart D, Appendix B; (5) involve genetically engineered organisms, synthetic biology, governmentally designated noxious weeds, or invasive species, unless the proposed activity would be contained or confined in a manner designed and operated to prevent unauthorized release into the environment and conducted in accordance with applicable requirements, such as those listed in paragraph B(5) of 10 CFR Part 1021, Subpart D, Appendix B.

There are no extraordinary circumstances related to the proposal that may affect the significance of the environmental effects of the proposal.

The proposal has not been segmented to meet the definition of a categorical exclusion. This proposal is not connected to other actions with potentially significant impacts (40 CFR 1508.25(a)(1)), is not related to other actions with individually insignificant but cumulatively significant impacts (40 CFR 1508.27(b)(7)), and is not precluded by 40 CFR 1506.1 or 10 CFR 1021.211 concerning limitations on actions during preparation of an environmental impact statement.

Based on my review of the proposed action, as NEPA Compliance Officer (as authorized under DOE Order 451.1B), I have determined that the proposed action fits within the specified class(es) of action, the other regulatory requirements set forth above are met, and the proposed action is hereby categorically excluded from further NEPA review.

NEPA Compliance Officer: \_\_\_\_\_ /s/ \_\_\_\_\_ Date Determined: \_\_\_\_\_ 11/19/2012 \_\_\_\_\_