



U.S. Department of Energy

Categorical Exclusion Determination Form

Proposed Action Title: CATEGORICAL EXCLUSION (CX) DETERMINATION FOR WASTE MINIMIZATION AND REUSE (CX-GEN-013)

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 would involve the use of new equipment and vendor services that would result in waste minimization and reuse of materials. Materials used in waste minimization, as well as the equipment and the proposed process, would be reviewed by compliance or other responsible personnel to ensure compliance with existing state and federal laws and with all applicable environment, safety, and health permit requirements. The proposed action would involve, but not be limited to, the following:

Minor operational changes at existing facilities to minimize waste generation and for reuse of materials. This would include (but not be limited to) adding filtration and recycle piping to allow reuse of machining oil, setting up sorting areas to improve process efficiency, and segregating previously mingled waste streams. Debris collected in the filtration process would be disposed of in accordance with existing waste management procedures and practices. Other than occasional filter replacement, no new or increased effluents, air emissions, or solid wastes would be generated as a result of operational changes.

Pulping of paper materials. This would include installation of a pulping system in an existing facility for treating nonrecyclable paper or paper-type materials. The process would use only water (and no chemicals) for pulping. The pulp would be used in grass-seeding actions as insulation material, etc. Waste generated would include wastewater that would be treated at existing wastewater treatment facilities. Airborne emissions generated during the pulping process would include small amounts of chemicals released from wet paper materials, which would be released to the atmosphere either through a permitted/approved release source or one that would be exempt from permitting for this type of action.

Cleaning coolant and cutting fluids. This would include installation of equipment for recycling nonradioactive, nonhazardous machine coolant and/or cutting fluids. The coolant or cutting fluids would be reused in routine shop operations. Residual shavings and small pieces of metal separated from the fluids would be disposed of as scrap metal. Rinse water generated from equipment cleaning would be disposed of as process wastewater in existing process wastewater systems. No new or increased regulated airborne releases would result from the recycling process.

Concentrating sewage sludge materials. This would include installation of sludge dewatering systems that might involve a centrifuge to separate solids from the supernatant, as well as installation of oven dryers to remove liquids. Liquid wastes generated would be returned for further treatment and disposal by existing sewage treatment systems. The solid wastes would be placed in approved disposal containers for storage in accordance with the levels and types of contamination. Airborne emissions would be discharged through an existing exhaust system or through an exhaust system with an approved air permit, if applicable.

Conducting indoor laboratory research actions. This would involve studying ways to minimize the generation of waste, as well as segregation and reuse of waste materials. Small amounts of routine laboratory wastes would be generated and then collected, handled, and disposed of according to standard waste management procedures and regulatory requirements. Airborne emissions would be discharged through existing laboratory hoods, which are exempt from permitting under state rules and regulations as they operate within agreed-to de minimis levels.

Improving utilities services. This would involve installation of equipment and components (primarily control systems) to improve the efficiency of utility services, including heating/ventilating/air conditioning, water, steam, etc. Wastes would include small amounts of conduit, electrical wiring, paper, and plastic. All waste materials generated would be collected at the sites and transferred to existing facilities for disposal. No liquid wastes would be generated, stored, or disposed of as part of the proposed action. In addition, no regulated airborne releases would result from the proposed action.

Recycling of fluorescent-light materials. This would involve packaging and transfer of fluorescent light bulbs and light fixtures to an off-site vendor for recycling and reuse of materials and components. The polychlorinated biphenyl (PCB)-containing ballasts would be removed and disposed of as a Toxic Substances Control Act waste. No liquid or gaseous waste would be generated.

Recycling of metals and electrical equipment. This would include collecting, packaging, and storing scrap metals and electrical components for reuse or disposing offsite to contractors involved in recycling activities. This action would also include the disposition of equipment and material removed during facility cleanout where the material is transferred to an offsite vendor or dispositioned through property management.

Any waste remaining after volume reduction and recycling efforts would continue to be disposed of by acceptable practices. Wastes that are not toxic or hazardous would be disposed of in existing waste disposal facilities. Materials that can no longer be recycled would be disposed of in accordance with waste management procedures of existing facilities. No major actions, such as construction or large-scale operational changes, would occur that would generate large volumes of waste materials.

The proposed waste minimization and reuse 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 waste minimization and reuse actions 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 would be warranted prior to initiating the proposed actions.

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 National Environmental Policy Act (NEPA) documentation. Should the action not meet the conditions for CX consideration, a separate specific NEPA determination would be made.

Although an action might fall under the category of "waste minimization and reuse," 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.

Categorical Exclusion(s) Applied:

B3.6 - Small-scale research and development, laboratory operations, and pilot projects
B6.8 - Modifications for waste minimization and reuse of materials

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: _____ Signed by Gary S. Hartman _____ Date Determined: _____ 11/19/2012 _____