

2019–2023 Significant Environmental Aspects

1.0 Introduction

The mission of the U.S. Department of Energy (DOE) Office of Legacy Management (LM) is to safely manage DOE's postclosure responsibilities and ensure the future protection of human health and the environment. All LM activities were evaluated for their potential impact on the environment. Furthermore, those aspects that could have a significant impact if they are not controlled were identified. The information obtained is used for developing programs to prevent or mitigate potential impacts and to establish prioritized goals, objectives, and targets for continually improving performance.

LM significant environmental aspects fall into four categories:

- Waste generation and minimization
- Resource consumption, use, and storage
- Releases to the environment
- Land use (including disposal cell construction and maintenance and structure erection or alteration)

2.0 Waste Generation and Minimization

The LM program generates waste as part of its operations. These wastes include solid, universal, electronic, hazardous, toxic, and radioactive waste streams that are managed in compliance with applicable regulatory requirements.

LM strives to achieve pollution prevention and source reduction and to minimize the quantity and toxicity of the waste that it generates through the following:

- Avoiding generating waste whenever possible
- The application of sustainable purchasing practices
- The promotion of reuse and recycling to divert waste from landfills
- Comprehensive project planning and implementation, which emphasizes sustainability practices, including not procuring unnecessary items and reusing material from other sites

These practices have many far-reaching benefits beyond preventing and minimizing pollution, including reducing waste disposal and product procurement costs; promoting sustainable supply chains; and conserving energy, water, and other natural resources.

LM also aims to eliminate hazardous materials spills, and the Radioactive Waste Management Program helps to limit, control, and minimize radioactive materials in solid waste, gaseous emissions, and liquid discharges.

3.0 Resource Consumption, Use, and Storage

LM purchases, stores, and uses a variety of materials at sites. These materials include diesel fuel, gasoline, acids and other chemicals, herbicides, pesticides, and radioactive sources. When materials are procured, sustainable acquisition practices—such as selecting products with reduced toxicity or with recycled-material content—are followed. In addition, utilities such as water, electricity, and natural gas are purchased and these purchases can be reduced by using renewable energy sources.

LM has a policy requiring the purchase or leasing of E85-capable, light-duty vehicles from the U.S. General Services Administration. An additional policy requires the leasing or purchasing of the smallest-sized vehicles as well as controlling the smallest-sized fleet necessary to accomplish LM's mission.

All drivers are encouraged to fuel E85-capable vehicles with E85 fuel whenever possible and to carpool if they are able. LM drivers are provided with instructions and resources for locating stations that carry alternate fuels. Lowering use of and dependency on conventional fuel, to the maximum extent possible, is an action that LM has committed to fulfill.

LM strives to minimize the storage and use of materials that may pose a risk to the environment, including petroleum, chemicals, and radioactive materials, with varying management programs. The LM Chemical Management Program is a best management practice for minimizing our use of chemicals that are harmful to plant systems, structures, components, and personnel. The program also mandates that the Environmental Compliance department screen and give prior approval for chemicals specific to minimizing the use of hazardous substances, chemical exposures to personnel, generation of hazardous and mixed waste, and fire hazards. In addition, the LM Waste Minimization/Pollution Prevention Plan seeks to replace hazardous materials with nonhazardous substitutes, such as using latex paint instead of solvent-based paint.

Executive Order 13693, *Planning for Federal Sustainability in the Next Decade*,¹ establishes goals for federal agencies to maintain leadership in sustainability and greenhouse gas (GHG) emission. The goals set within include promoting the building of energy conservation, efficiency, and management by reducing agency building-energy usage. There are operations and maintenance plans in place that address resource-consuming items, such as electronic settings; heating, ventilation, and air conditioning setbacks; temperature controls; and electronic-power management techniques to minimize the use of resources. LM goals also aim to improve water-use efficiency and management. LM accomplishes these goals by installing water meters, utilizing low-flow water fixtures whenever possible, and evaluating agency potable and industrial landscaping and agricultural water consumption for reduction opportunities when appropriate.

¹ EO 13693, *Planning for Federal Sustainability in the Next Decade*, was rescinded by EO 13834, *Efficient Federal Operation*. Agencies were directed to defer making changes and use existing guidance until Council on Environmental Quality issues implementing instructions.

4.0 Releases to the Environment

In accordance with federal and state regulations, operations at several sites release wastewater and storm water into receiving streams or groundwater. The National Pollutant Discharge Elimination System regulates discharges to streams. Wastewater is treated and routinely tested for metals, chemicals, and radionuclides before it is discharged to streams. Discharges to groundwater are also subject to site-specific agreements between LM and site-specific regulatory agencies.

LM maintains radioactive materials at LM sites, including uranium mill tailings, in onsite disposal cells. Cells are carefully monitored and maintained to prevent releases to the environment.

LM evaluates projects and activities for their potential to affect air quality or emit GHGs, and determinations are made regarding required permitting and monitoring. LM tracks Scope 1, 2, and 3 GHG emissions and implements mitigation measures where applicable.

5.0 Land Use

Reducing the environmental footprint on the natural landscape, whenever possible, is something that LM actively seeks. Although maintenance or monitoring projects such as road repairs and well installations have the potential to cause some harm to the environment (e.g., erosion of soil, introduction of noxious weeds, disturbance to cultural resources), LM takes appropriate measures to prevent such consequences.

LM identifies potential environmental impacts during the planning process of any project and incorporates best management practices or other mitigations into plans before surface-disturbing work begins. We reuse portions of sites to support renewable energy initiatives and projects.

Comments or questions related to LM's significant environmental aspects should be directed to the LM Environmental Program Manager Joyce Chavez at (720) 377-3820 or Joyce.Chavez@lm.doe.gov.