

HAZARDOUS MATERIALS MANAGEMENT AND SPILL PREVENTION PLAN

INTRODUCTION

This plan has been prepared for Liberty Utilities 650 Transmission Line Upgrade Project to reduce the risks associated with the use, storage, transportation, production, and disposal of hazardous materials, including hazardous substances and wastes. This plan is in compliance with the project's required **Mitigation Measures (MM) 4.10-2, 4.10-3, and APM HAZ-1**. This plan includes a discussion of:

- Hazardous materials that will be used on the project and management of these materials.
- Spill prevention, control, and countermeasures that will be implemented to prevent spills or respond to accidental spills.
- An overview of the notification and documentation procedures to be followed in the event of a spill.

REGULATORY OVERVIEW

Major federal legislation pertaining to hazardous materials include the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), the Resource Conservation and Recovery Act (RCRA), the Clean Air Act, and the Clean Water Act.

Numerous other federal, state, and local regulations also govern the use, storage, transport, production, and disposal of hazardous materials. Some of the key requirements of these laws are outlined in

- 29 CFR 1900-1910 Occupational Safety and Health Act
- 40 CFR 100-149, 400-469 Clean Water Act
- 40 CFR 141-143 Safe Drinking Water Act
- 40 CFR 50-99 Clean Air Act
- 40 CFR 702-799 Toxic Substances Control Act
- 40 CFR 300-306 CERCLA/SARA
- 40 CFR 240-280 RCRA/HSWA/FFCA

- 49 CFR 171-179 Hazardous Materials Transportation Act [U.S. Department of Transportation (USDOT)]

Project personnel responsible for handling hazardous materials for this project will be trained in the proper use and management of the materials and familiar with all applicable laws, policies, procedures, and best management practices (BMPs) related to them.

OVERVIEW OF HAZARDOUS MATERIALS PROPOSED FOR USE

By definition, hazardous materials are substances and wastes that have the potential to pose a significant threat to human health and the environment based upon their quantity, concentration, or chemical composition. Construction, operation, and maintenance of this project will require the use of certain potentially hazardous materials, such as gasoline, diesel fuel, hydraulic fluid, lubricating oils and solvents, cleansers, explosives, and other substances.

Some of these materials will be used in relatively large quantities at material yards and in some instances on the right-of-way (ROW) to operate and maintain equipment during construction. Smaller quantities of other materials, such as pesticides and fertilizers, paints and chemicals will be used during project operation and maintenance. Materials that are anticipated to be used are listed in Table D-1. Liberty Utilities' Prime Contractor will be required to complete the Weekly Hazardous Materials/Waste Inspection Log. While use of these materials on the project has the potential to adversely affect humans and the environment, the risk associated with the use of these materials will be reduced substantially with the implementation of the storage, transportation, and disposal requirements required in this plan. In addition, Liberty Utilities has a well-developed Hazardous Material Program in place and uses non-hazardous substances in routine construction and maintenance activities to the greatest extent possible.

Waste Oil Filters

Used, metal canister oil filters can be managed as non-hazardous wastes as long as they are thoroughly drained of "free flowing" oil (oil exiting drop-by-drop is not considered "free flowing"); the filters are accumulated, stored, and transferred in a closed, rainproof container; and the filters are transferred for purposes of recycling.

Table D-1: Hazardous Materials Anticipated for Project Use

Material Name/Type	
ABC Fire Extinguisher	Lubricating Grease
Acetylene Gas	Mastic Coating
Air Tool Oil	Methyl Alcohol
Ammonium Hydroxide	North Wasp and Hornet Spray (1,1,1-Trichloro-ethane)
Antifreeze	Oxygen
Automatic Transmission Fluid	Paint
Battery Acid	Paint Thinner
Bee Bop Insect Killer	Petroleum Products
Canned Spray Paint	Chain Lubricant (Methylene Chloride)
Propane	Connector Grease
Puncture Seal Tire Inflator	Contact Cleaner 2000
Safety Fuses	2-Cycle Oil
Explosives (if necessary)	Wagner Brake Fluid
Eye Glass Cleaner (Methylene Chloride)	WD-40
Gas Treatment	Safety Solvent
Gasoline	Trichloroethane
Insulating Oil	

Used Lubricating Oil

Waste lubrication oil that is used as follows is considered to be a hazardous waste:

- Any oil refined from crude oil that has been used and, as a result of use, has been contaminated with physical or chemical impurities.
- Any oil refined from crude oil and, as a consequence of extended storage, spillage, or contamination with non-hazardous impurities, such as dirt, rags, and water, is no longer useful to the original purchaser.
- Spent lubricating fluids that have been removed from a bus, truck, automobile, or heavy equipment.

As a result, the requirements for hazardous waste storage described in the Hazardous Materials Management section will apply to waste oil, contaminated soil, contaminated rags, etc. during storage and on-site management. However, to expedite and encourage recycling, the requirements for transportation and service facilities are relaxed. For instance, the Contractor may consolidate waste oil by transporting up to 70 gallons at one time to a home base for accumulation prior to recycling is exempt from hazardous waste transportation requirements.

Contaminated Containers

Containers that once held hazardous substances as products or which held hazardous wastes must be considered to be hazardous wastes due to the residues of hazardous contents that may persist. In order for the container to be handled as a non-hazardous waste, regulations require certain handling procedures as described below:

- The containers must be essentially empty, meaning as much of the contents have been removed as possible and that none will pour out in any orientation.
- If the empty containers are less than five gallons, they may be disposed of as non-hazardous solid waste or scrapped. These containers must still meet the disposal criteria described above.
- If the empty containers are greater than five gallons, they must be handled in the following manner:
 - Returned to the vendor for re-use
 - Sent to a drum recycler for reconditioning, or
 - Used or recycled on-site.

These actions must occur within one year of the container being emptied.

HAZARDOUS MATERIALS MANAGEMENT

The following project-specific measures are intended to prevent the discharge of fuels, oils, gasoline, and other harmful substances to streams and wetlands, groundwater aquifers, and/or other sensitive resource areas during project construction, operation, and maintenance. These measures pertain to all vehicle refueling and servicing activities as well as the storage, transportation, production, and disposal of hazardous materials/wastes.

Refueling and Servicing

In accordance with **APM WQ-1 and Mitigation Measure 4.6-5**, all refueling will be conducted at least 100 feet away from waterways, within designated refueling stations. If refueling within 100 feet of a waterway or RCA is unavoidable, Contractor will be required to have spill kits on site, install secondary containment to control accidental spills, and notify an environmental monitor prior to fueling. Environmental monitors will regularly inspect refueling areas to help ensure that proper measures are being implemented in accordance with the project's SWPPP and Spill Prevention, Control and Countermeasure (SPCC) Plan.

Equipment will be fueled, to the extent possible, at local gas stations and material/staging yards. In cases where it is not feasible to transport equipment off of the right-of-way for fueling purposes, a fueler/oiler truck or pickup with a bulk tank, will fuel the piece of equipment on the right-of-way.

In general, routine equipment maintenance will occur at designated staging areas or commercial facilities. In the case of equipment failure on the right-of-way, maintenance may need to occur onsite. Any equipment maintenance conducted on the right-of-way will be done with care to ensure that hazardous materials are not spilled during the maintenance activities. In addition, additional spill control materials will be onsite to provide adequate protection to soil and other resources from contamination.

Transportation of Hazardous Materials

In compliance with **APM TRAN-1**, procedures for loading and transporting fuels and other hazardous materials will meet the minimum requirements established by the USDOT and other pertinent regulations. Prior to transporting hazardous materials, appropriate shipping papers will be completed.

The following measures will be implemented to reduce the potential for spills during transportation of hazardous materials:

- All project equipment will be inspected for leaks prior to being brought on-site and regularly throughout construction.
- Prior to transporting hazardous materials, vehicles will be inspected for leakage and other potential safety problems.
- Vehicles carrying hazardous materials will be equipped with:
 - Shovels, barrier tape, absorbent socks or pads, four- to six- millimeter plastic bags or heavy-duty trash bags, personal protective clothing (e.g., gloves): and
 - Absorbent pads to contain a small spill should one occur during transport.
- All hazardous materials will be properly signed (placard) and/or marked and properly containerized and labeled at all times, including during transportation.
- Transfer of materials from large to small containers will not be done by hand pouring, but will be accomplished using appropriate equipment including pumps, hoses, and safety equipment.

The Prime Construction Contractor will ensure that vehicle drivers are trained to properly respond to and report spills, leakage, and/or accidents involving hazardous materials.

Storage of Hazardous Materials

Material Yard

Hazardous materials will only be stored in the designated material yards. The Prime Construction Contractor will not be allowed to store large containers without approval from Liberty Utilities.

Precautions at the material yard will include limiting the quantity and amount of time such materials are stored, fortifying barriers or providing additional containment between hazardous materials and waterways, and using trained personnel to monitor activities at the yard. Clean-up materials, including absorbent spill pads and plastic bags (spill kits) will also be stored in these areas.

Physical Storage Requirements

The Prime Construction Contractor must store hazardous materials at the material yard in accordance with the following physical requirements.

- **Storage Containers:** Containers must be compatible with the wastes stored in the containers. If the container is damaged or leaks, the waste must be transferred to a container in good condition. The Prime Construction Contractor will inspect containers at least weekly to discover any leaks in the containers or the containment systems. Containers used for transportation must comply with USDOT requirements.
- **Incompatible Wastes:** Wastes that are not compatible with other wastes will not be stored in the same container or in an unwashed container that previously held an incompatible material.
- **Ignitable or Reactive Wastes:** Wastes that may ignite or are reactive must be located at least 50 feet from the material yard (fly yard) property line and “NO SMOKING” signs must be posted in conspicuous places wherever there is a hazard from ignitable or reactive waste.
- **Container Management:** Containers holding hazardous waste will be kept closed during transfer and storage, except when it is necessary to add or remove waste.
- **Secondary Containment:** Secondary containment will consist of bermed or diked areas that are lined and capable of holding 110 percent of the volume of the stored material and will be provided for fuel and oil tanks stored on-site.
- **Security:** Hazardous materials will be stored in secure areas to prevent damage, vandalism, or theft. During construction hours, hazardous materials may be stored temporarily on the ROW, but overnight storage on the ROW will be prohibited. All storage containers will remain sealed when not in use and storage areas will be secured (gated, locked, and/or guarded) at night and/or during non-construction periods.

Container Labeling Requirements

The Prime Construction Contractor will comply with the following labeling requirements for any container (including tanks) used on-site to store accumulated hazardous wastes. The containers will be labeled with the information below and as required in 22 CFR Section 66262.34 (f):

- The accumulation start date and/or the date the 90-day storage period began.
- The words: “Hazardous Waste.”
- The composition and physical state of the wastes.
- Warning words indicating the particular hazards of the waste, such as: “flammable, corrosive or reactive.”
- The name and address of the facility, which generated the waste.

Figure D-1: Sample Hazardous Waste Label for On-Site Storage shows an example of a label for on-site hazardous waste storage.

Figure D-1: Sample Hazardous Waste Label for On-Site Storage

HAZARDOUS WASTE			
Contents:			
Physical State (gas, liquid, solid):			
Accumulation Start Date:			
Hazards:			
Name and Address of Generator:			
Contact Person:		Telephone:	
HANDLE WITH CARE!			
CONTAINS HAZARDOUS OR TOXIC WASTES			

Disposal of Hazardous Wastes

Hazardous wastes will be collected regularly and disposed of in accordance with all applicable laws. The Prime Construction Contractor will determine details on the proper handling and disposal of hazardous waste and will assign responsibility to specific individuals prior to the start of construction. Hazardous wastes typically include used oil, used oil filters, used gasoline containers, spent batteries, used spill clean-up materials, (e.g., absorbent pads) and other items. Every effort will be made to minimize the production of hazardous waste during the project including, but not limited to:

- Minimizing the amount of hazardous materials needed for the project;

- Using alternative non-hazardous substances when available;
- Recycling usable materials, such as oils, paints, and batteries to the maximum extent; and
- Filtering and reusing solvents and thinners whenever possible.

Liberty Utilities maintains a list of products and wastes that it recycles and will provide it to the Prime Construction Contractor prior to construction of the project.

SPILL CONTROL AND COUNTERMEASURES

While Liberty Utilities and the Prime Construction Contractor will implement the measures discussed above to prevent the spill of hazardous materials during construction, operation, and maintenance activities, there is the potential for accidental and inadvertent spills. Liberty Utilities and the Prime Construction Contractor will implement the following measures and procedures to ensure that spills are contained as quickly as possible to minimize impacts and that the entire spill area is adequately cleaned-up.

Spill Prevention and Response Training

The Prime Construction Contractor will ensure that all construction personnel responsible for spill prevention and response are appropriately trained in compliance with Occupational Safety and Health Act requirements in California [29 CFR Sec. 1910.1200.]. The training will include, at a minimum:

- An overview of regulatory requirements,
- Methods for the safe handling/storage of hazardous materials
- Spill prevention procedures
- General emergency response procedures
- Use of personal protective equipment
- Use of spill clean-up equipment
- Procedures for coordinating with emergency response teams
- Procedures for notifying agencies
- Procedures for documenting spills, and
- Identification of sites/areas requiring special treatment, if any.

In addition, all project personnel will be required to attend an environmental training provided by the project monitor and/or inspector(s) that will provide a project-specific overview of hazardous materials management, storage, disposal, and spill prevention and response.

Spill Response and Clean-up Equipment

The Prime Construction Contractor will be responsible for maintaining an adequate inventory of spill response and clean-up materials at project work areas to provide for quick and immediate response to spills.

This equipment includes:

- A minimum of two spill kits (kept in 55-gallon drums or compatible containers) containing the following items and available on-site at the material yard (fly yard).
 - Shovels
 - Absorbent pads/materials
 - Personal protective gear
 - Medical first-aid supplies
 - Bung wrench (non-sparking)
 - Phone list with emergency contact numbers
 - Storage containers
 - Communications equipment
- All fuel and service vehicles will carry a minimum 20 pounds of suitable absorbent material to handle potential spills.
- Radios or other communication equipment will be maintained in construction vehicles and other easily accessible locations so that project personnel can quickly report spills.

Spill Response and Clean-up Procedures

The first priority in responding to any spill is personal and public safety. Construction personnel will be notified of evacuation procedures to be used in the event of a spill emergency, including evacuation routes. In general, the Prime Construction Contractor will oversee all clean-up

activities, including providing necessary materials and labor and performing all reporting and documentation as required.

In general, the first person on the scene at a spill site will:

- Attempt to identify the source, composition, and hazard of the spill;
- Immediately notify appropriately trained personnel;
- Isolate and stop the spill if possible and begin clean-up (if it is safe);
- Report the spill to a supervisor and/or inspector(s); and
- Initiate evacuation of the area if necessary.

Project personnel will only attempt to clean up or control a spill if they have received proper training and possess the appropriate protective clothing and clean-up materials. Untrained individuals will notify the appropriate response personnel and attempt to isolate the spill, if safe. In addition to these general guidelines, personnel responding to spills will consult the most current USDOT Emergency Response Guidebook for guidelines for responding to the particular hazardous materials spilled. The Prime Construction Contractor will maintain a copy of the USDOT Emergency Response Guidebook on-site during all construction activities. Personnel will also consult the Emergency Preparedness and Response Plan for project-specific emergency response measures.

In the event of a major spill, the Prime Construction Contractor will likely seek expert advice to support proper clean up. Liberty Utilities' Emergency Response Organization may be activated if necessary. Liberty Utilities may require verification of clean-up of major spills by sampling and laboratory analysis.

Spill Events in Upland Areas

The Prime Construction Contractor will generally respond to spills in upland areas as follows:

- Notify the Inspector(s) and Liberty Utilities' Construction or Project Manager.
- Liberty Utilities' Emergency Response Organization may be activated if necessary (see Emergency Preparedness Response Plan).
- Contain the spill material (e.g., construct berms around the area) to prevent migration of hazardous materials toward streams, wetlands, or other sensitive resource areas.

- Collect contaminated soils using appropriate spill response and clean-up equipment (e.g., absorbent materials and shovels) and machinery (dry materials will not be cleaned-up with water).
- Store contaminated materials in appropriate containers (do not bury materials) in the designated hazardous material areas within the staging/material yards.
- Dispose of contaminated materials in an approved, off-site area.

After contaminated soil is recovered, all machinery utilized will be decontaminated, and recovered soil, contaminated clean-up materials, vegetation, etc. will be treated and disposed of as a hazardous waste. For major spills, clean-up may be verified by sampling and laboratory analysis.

Spill Events in Streams and Wetlands

To prevent hazardous materials from entering wetlands with standing water or a flowing stream, the Prime Construction Contractor will place absorbent booms on the water surface either around or downstream of the work area prior to construction.

The Prime Construction Contractor will generally respond to spills in streams and wetland areas as follows:

- Notify the Environmental Inspector(s) and Liberty Utilities' Construction or Project Manager.
- Liberty Utilities' Emergency Response Organization may be activated if necessary.
- Install booms and skimmers to contain and remove contaminants.
- Clean-up materials, including absorbent spill pads and plastic bags, will be available on-site when construction is occurring within 100 feet of flowing streams and "wet" wetlands.
- Other actions will be taken to clean-up contaminated waters, as necessary.

NOTIFICATION AND DOCUMENTATION PROCEDURES

Notification and documentation procedures for spills that occur during project construction, operation, or maintenance will conform to applicable federal, state, and local laws. Adherence

to such procedures will be the top priority once initial safety response actions have been taken. The following sections describe the notification and documentation procedures that will be implemented.

Reporting Criteria

The Prime Construction Contractor is required to report all hazardous materials spills to the Environmental Inspector(s), who will determine if the spill meets the criteria for immediate agency notification.

Required Notification

Prior to notification, the Environmental Inspector(s) will obtain as much information about the spill event as possible. Liberty Utilities or the Environmental Inspector(s) will notify the appropriate agencies based on permit requirements and the location of the spill site. The Contractor will be required to notify the Liberty Utilities Construction Manager of any spill. The CM will determine if further agency notification is required.

Table D-2 provides a list of standard spill information requested by agencies. Federal, State and Local agencies that have been verbally notified of a spill will be informed in writing within 10 days.

Phone numbers for agencies and emergency personnel are provided in the Project Contact Directory. Liberty Utilities will verify and update these phone numbers throughout construction. Additionally, the Prime Contractor will update phone numbers as key personnel or sub-contractors are changed. When a spill poses a direct and immediate threat to health and safety and/or property, Liberty Utilities will notify the landowners potentially affected. On-site personnel should consult with the Environmental Inspector(s) to clarify regulatory requirements.

Table D-2: Standard Spill Information Requested by Agencies

When notifying a regulatory agency, the following information should be provided:
1. Current threats to human health and safety, including known injuries, if any.
2. Spill location, including landmarks and nearest access route.
3. Reporter’s name and phone number.
4. Time the spill occurred.
5. Type and estimated amount of hazardous materials involved.
6. Potential threat to property and environmental resources, especially streams and wetlands.
7. Status of response actions

Documentation

The Prime Construction Contractor is required to maintain detailed records for all spills, regardless of quantity or size. The Prime Construction Contractor will record spill information in a daily log. The following items must be included in the daily log (as appropriate, based on the spill incident):

- Time and date of each log entry.
- Name of individual recording log entry.
- List of all agencies notified, including name of individual notified, time and date.
- Type and amount of material spilled.
- Resources affected by spill.
- List of response actions taken, including relative success.
- Copies of letters, permits, or other communications received from government agencies throughout the duration of the spill response.
- Copies of all outgoing correspondence related to the spill.
- Photographs of the response effort (and surrounding baseline photographs).