

4.7 HAZARDS AND HAZARDOUS MATERIALS

4.7.1 SETTING

The project area encompasses urbanized areas primarily characterized by industrial, commercial, and residential land uses. Construction involving soil disturbance that would take place for the installation of fiber optic cable facilities would potentially occur within existing right of ways of public roadways, railroads, and utility lines. The construction of OP-AMP/regeneration stations may also involve minimal soil disturbance. The potential for ground contamination is higher in industrial areas than residential, however given the size and diversity of the area covered by the project, there are likely thousands of hazardous waste generators, leaking tank sites, and toxic spills within the project area.

In order to assess potential impacts of the project, hazardous materials record searches would be conducted for any alignments involving ground disturbance. The record searches would include updated database searches of the seven state and federal lists that document known locations of hazard material releases. These lists include the following:

- “Calsites” -- California Dept. of Health Services/Cal EPA
- Cortese List -- Office of Planning and Research
- Leaking Underground Storage Tanks (LUST) -- Regional Water Quality Control Board
- CERCLIS -- EPA Superfund sites
- National Priority List (NPL) -- US EPA Priority Superfund sites
- Annual Work Plan (AWP) -- California EPA
- Spills, Leaks, Investigations, and Clean-ups (SLIC) – California Regional Water Quality Control Board

The Cortese and LUST lists primarily document release incidents from underground storage tanks and would be searched within a 1000-foot of subsequent activities. The other lists identify more extensive contamination incidents in which the state or the EPA is the lead agency.

TYPES OF HAZARDOUS MATERIALS

A material is considered hazardous if it appears on a list of hazardous materials prepared by a federal, state, or local agency, or if it has characteristics defined as hazardous by such an agency. Chemical and physical properties cause a substance to be considered hazardous, including the properties of toxicity, ignitability, corrosivity, and reactivity. These properties are defined in the California Code of Regulations (CCR), Title 22, Sections 66261.20-66261.24. Within typical construction sites, materials that could be considered hazardous include fuels, motor oil, grease, various lubricants, solvents, soldering equipment, and glues. Also, excavation may expose buried hazardous materials resulting from prior use of the proposed site or adjacent property to the sites.

A “hazardous waste” is any hazardous material that is discarded, abandoned, or to be recycled. The criteria that render a material hazardous also make a waste hazardous (California Health and Safety Code, Section 25117).

REGULATORY BACKGROUND

Hazardous materials management is subject to numerous laws and regulations at all level of government. Additionally drinking water standards for hazardous materials are mandated by both federal and state agencies. A brief summary of the regulations promulgated by federal and state regulatory agencies that oversee hazardous materials management and drinking water standards is provided below.

The EPA regulates the management of hazardous materials and wastes. The primary federal hazardous materials and waste laws are contained in Resource Conservation and Recovery Act (RCRA), the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), and the Toxic Substances Control Act (TSCA). These laws apply to hazardous waste management, soil and groundwater contamination, and the controlled use of particular chemicals. In California, EPA has delegated most of its regulatory responsibilities to the state. TSCA allows EPA to ban (or phase out) the use of chemicals that may present unreasonable risks to public health or the environment.

The state agencies most involved in enforcing public health and safety laws and regulations include the Cal-EPA Department of Toxic Substance Control (DTSC), the California Occupational Safety and Health Administration (Cal-OSHA), the San Francisco Bay RWQCB, the Bay Area Air Quality Management District, and the California Integrated Waste Management Board.

DTSC enforces hazardous materials and waste regulations in California under the authority of EPA. California's Hazardous Waste Control Law incorporates the federal hazardous materials and waste standards of RCRA, but California's regulations are stricter in many respects.

In California, Cal-OSHA assumes primary responsibility for enforcing worker safety regulations such as the federal Hazard Communication Program regulations. Cal-OSHA regulations are found in the CCR Title 8. Although Cal-OSHA regulations have incorporated federal OSHA standards, Cal-OSHA regulations are generally more stringent than those of the federal government.

HAZARDOUS MATERIALS MANAGEMENT

Federal and state laws require detailed planning to ensure that hazardous materials are properly handled, used, stored, and disposed of, and in the event that such materials are accidentally released, to prevent or to mitigate injury to health or the environment. The Federal Emergency Planning and Community Right-to-Know Act of 1986 imposes hazardous materials planning requirements to help protect local communities in the event of accidental release.

The California Hazardous Materials Release Response Plans and Inventory Law of 1985 (Business Plan Act) requires preparation of Hazardous Materials Business Plans and disclosure of hazardous materials inventories. A business plan includes information such as an inventory of hazardous materials handled, facility floor plans showing where hazardous materials are stored,

an emergency response plan, and provisions for employee training in safety and emergency response procedures (California Health and Safety Code, Division 20, Chapter 6.95, Article 1). Statewide, the California Environmental Protection Agency (Cal-EPA) DTSC has primary regulatory responsibility for management of hazardous materials, with delegation of authority to local jurisdictions that enter into agreements with the state. The laws and regulations are administered locally by Alameda County Environmental Health Department, Hazardous Materials Division.

Under certain circumstances, a business must prepare a Risk Management Plan (RMP) to minimize off-site risks associated with the storage and use of acutely hazardous materials. The new RMP program, which was developed under Senate Bill 1889 to comply with Section 112(r) of the federal Clean Air Act, replaced the California Risk Management and Prevention Program (RMPP). The regulations that define the RMP process are given in the California Health and Safety Code, Sections 25531-25543.3. An RMP provides additional planning information that covers equipment and systems safety, operating procedures, preventive maintenance, upset risk assessments, and safety auditing. The State Office of Emergency Services has primary responsibility for regulating acutely hazardous materials. Local governments have the lead role for working directly with businesses in implementing this program.

Storage of hazardous materials in underground tanks is regulated by the State Water Resources Control Board, which has overall responsibility for implementing all regulations set forth in Title 23 of the CCR. State standards cover installation and monitoring of new tanks, monitoring of existing tanks, and corrective actions for removed tanks. State underground storage tank regulations, including permitting for all hazardous materials storage, are enforced by local fire departments.

HAZARDOUS MATERIALS TRANSPORT

The U.S. Department of Transportation regulates hazardous materials transportation between states. State agencies with primary responsibility for enforcing federal and state regulations and responding to hazardous materials transportation emergencies are the California Highway Patrol and Caltrans. Together, these agencies determine container types used and license hazardous waste haulers for hazardous waste transportation on public roads.

HAZARDOUS WASTE MANAGEMENT

DTSC regulates the generation, transportation, treatment, storage, and disposal of hazardous waste under the RCRA and the state Hazardous Waste Control Law. Both laws impose “cradle to grave” regulatory systems for handling hazardous waste in a manner that protects human health and the environment.

LIKELIHOOD OF CONTAMINATION AND KNOWN CONTAMINATION SITES

Record Searches and Phase I Site Assessments

The proposed project area may potentially contain a multitude of existing hazardous sites. They are more likely in urban areas with industrial uses, however they are likely to be scattered throughout the project area. When subsequent activities are proposed, record searches shall be conducted for the proposed activities to identify high risk areas. Phase I site assessments will also be conducted for the locations of regenerator/OP-AMP stations once they are identified.

Methane and Hydrogen Sulfide Gas Seepage

Naturally occurring methane gas and hydrogen sulfide gas (H₂S) have been known to migrate into shallow geology deposits in certain areas of the Southern California region. In 1985, an explosion occurred in the basement of a commercial retail outlet store (Ross Dress for Less) in Los Angeles caused by methane accumulation through subsurface seepage. Methane gas and hydrogen sulfide (H₂S) can follow fissures or improperly abandoned oil wells to the surface or near-surface strata from deeper oil producing formations. Areas above known petroleum resources are of particular concern including central Los Angeles (Fairfax District), Huntington Beach, and Brea. Methane may be trapped under impervious surfaces where concentrations can cause explosion or hazardous breathing conditions. H₂S can be toxic to humans at elevated concentrations. Excavations may experience pockets of accumulated methane or H₂S gas at shallow depths.

4.7.2 REGULATIONS, APPROVALS, AND PERMITS APPLICABLE TO HAZARDS AND HAZARDOUS MATERIALS

LOCAL OVERSIGHT PROGRAMS

The Local County Department of Environmental Health is commonly the primary agency responsible for the management of hazardous materials and wastes in a given area. The department is responsible for hazardous waste generator and hauler inspections, underground storage tank regulation, emergency response, hazardous site cleanup, and waste recycling and recovery. Additional information can be found in a County's *Hazardous Waste Management Plan*.

Within some municipalities, the local fire department may be responsible for implementation of the Local Oversight Program (LOP). The LOP implements and tracks various hazardous materials programs, including remediation of identified releases of hazardous materials.

4.7.3 IMPACTS AND MITIGATION MEASURES

SIGNIFICANCE CRITERIA

Impact HAZ-1: Possible temporary exposure to or release of hazardous materials during construction. (Potentially Significant)

The proposed project would not require long-term storage, treatment, disposal, or transport of significant quantities of hazardous materials; however, small quantities of hazardous materials may be stored, used, and handled during ground disturbing construction operations. These relatively small quantities would be below reporting requirements for hazardous materials business plans and would not be considered to pose public health and safety hazards through release of emissions. The hazardous materials anticipated to be used are small volumes of petroleum hydrocarbons and their derivatives (e.g., gasoline, oils, lubricants, and solvents) required to operate the construction equipment and bentonite for boring lubrication. These materials would generally be used by excavation equipment, generators, and other construction equipment and would be contained within vessels engineered for safe storage. Due to the rate of installation, storage of significant quantities of these materials at the construction site is not anticipated. Rather, tender vehicles would most likely provide fuel and lubricant to construction equipment on a daily basis and would be mobilized from an off-site location. Spills during on-site fueling of equipment or an upset condition (i.e., puncture of a fuel tank through operator error or slope instability), could result in a release of fuel or oils into the environment, including sensitive waterways within the vicinity of the proposed activity.

Materials proposed for use in conduit typically include polyethylene and polyvinyl chloride (PVC). Polyethylene is a common inert plastic used to fabricate soda bottles (PET bottles) and children's toys and does not pose an environmental hazard. Polyvinyl chloride is also an inert material commonly used in the residential community for sprinkler piping. While vinyl chloride, a known toxic substance, is used in the production of PVC piping, once fabricated (polymerized), PVC has no vapor pressure and does not pose an immediate environmental hazard. Degradation of some PVC products (such as window blinds) has been shown to release lead dust and chlorine to the environment over time, given exposure to sunlight. However, fiber optic cable facilities would be buried in over 3 feet of soil and would not be exposed to environmental conditions that would result in substantial degradation. No mitigation is required.

The option of having 250-gallon aboveground fuel tanks on-site at the regenerator/OP-AMP stations if required for diesel generator use, would involve a potential risk for accidental release, as well as being a fire hazard.

Subsurface hazardous materials may be encountered during construction. During construction, the construction team may encounter unexpected materials that may be considered hazardous waste once they are exposed. Procedures of proper handling and disposal are established by federal, state, and local regulations. Sempra Communications' contractors will be trained in the handling of such materials prior to construction. They would also comply to these regulations by

preparing a Hazardous Materials Management/Spill Prevention Plan, a Health and Safety Plan, and a Hazardous Materials Business Plan and making them available to all contractors on the project.

The purpose of the Hazardous Materials Management/Spill Prevention Plan is to provide on-site construction managers, environmental compliance monitors, and regulatory agencies with a detailed description of hazardous materials management, spill prevention, and spill response/cleanup measures associated with the construction of project elements. The primary objective of the plan is to prevent the spill of hazardous materials. Elements of the plan shall include, but not be limited to, the following:

- A discussion of hazardous materials management, including delineation of hazardous material and hazardous waste storage areas, access and egress routes, waterways, emergency assemble areas, temporary hazardous waste storage areas;
- Spill control and countermeasures, including employee spill prevention/response training; and
- Notification and documentation procedures.

The Health and Safety Plan would include a contingency plan for hazardous materials and waste operations, and would be submitted to the agency with jurisdiction before site activities could proceed. The Health and Safety Plan, applicable to all excavation activities, would establish policies and procedures to protect workers and the public from potential hazards posed by hazardous wastes. The plan would be prepared according to federal and Cal-OSHA regulations for hazardous waste site Health and Safety Plans.

This Health and Safety Plan would also provide for proper storage and/or disposal of any contaminated soils that meet the definition of a hazardous waste. Such a protocol could include off-site treatment of contaminated materials or disposal at an appropriate landfill.

Sempra Communications would prepare a Hazardous Materials Business Plan for any regenerator/OP-AMP station equipped with a fuel tank larger than 55-gallons. In addition to the above requirements, Sempra Communications would also implement the following mitigation measures to reduce this impact to a less than significant level.

Mitigation Measure HAZ-1a: Ensure proper labeling, storage, handling, and use of hazardous materials.

Sempra Communications would ensure proper labeling, storage, handling, and use of hazardous materials in accordance with best management practices and the Occupational Safety and Health Administration (OSHA)'s HAZWOPER requirements. Sempra Communications would ensure that employees are properly trained in the use and handling of these materials and that each material is accompanied by a material safety data sheet. Additionally, any small quantities of hazardous materials stored temporarily in staging areas will be stored on pallets within fenced and

secured areas and protected from exposure to weather. Incompatible materials will be stored separately, as appropriate.

To avoid unexpected releases of hazardous materials, Sempra Communications would include individuals trained in accordance with the OSHA's HAZWOPER requirements. Additionally, Sempra Communications would have a written plan outlining how to respond if hazardous materials are unexpectedly encountered. The plan will specify identification, handling, reporting, and disposal of hazardous materials. All hazardous waste materials removed during construction, to the extent necessary to ensure the area can be safely traversed, will be handled and disposed of by a licensed waste disposal contractor and transported by a licensed hauler to an appropriately licensed and permitted disposal or recycling facility. Sempra Communications would require in its contracts that contractors meet federal, state, and local requirements.

Mitigation Measure HAZ-1b: Report all significant releases or threatened releases of hazardous materials.

All hazardous materials spills or threatened release, including petroleum products such as gasoline, diesel, and hydraulic fluid, regardless of quantity spilled must be immediately reported if the spill has entered or threatens to enter a water of the State, including a stream, lake, wetland, or storm drain, or has caused injury to a person or threatens injury to public health. Immediate notification must be made to the local emergency response agency, or 911 and the Governor's Office of Emergency Services (OES) Warning Center at 1-800-852-7550.

For non-petroleum products, additional reporting may be required if the release exceeds federal reportable quantity thresholds over a release period of 24 hours as detailed in Section 25359.4 of the California Health and Safety Code and Title 40, Section 302.4 of the CFR.

All construction personnel, including environmental monitors, shall be aware of state and federal emergency response reporting guidelines. In California, spill notification guidance is summarized in the OES Hazardous Materials Unit's *California Hazardous Material Spill/Release Notification Guidance* (OES 1999). Reportable quantities for federal hazardous substances can be found in Table 302.4 of 40CFR 302.3. Guidance for federal notification is also provided in the *California Hazardous Material Spill/Release Notification Guidance* manual.

Mitigation Measure HAZ-1c: Implement dust abatement program.

As discussed in the Air Quality section of this Chapter, Sempra Communications would prepare and implement a Dust Abatement Program. This Dust Abatement Program would minimize potential public health impacts associated with exposure to contaminated soil dust.

Mitigation Measure HAZ-1d: Reduce excavation impacts.

If at any time during construction, soil and or sediment are suspected of being contaminated by visual observations of debris, discoloration or sheen, and/or odor, Sempra Communications

would monitor and analyze excavated material with a photo-ionization detector to determine the potential for soil contamination and the need for specialized soil-handling procedures to reduce excavation impacts in areas of suspected contamination.

Significance after Mitigation: Less than Significant

Impact HAZ-2: The project could require disposal of potentially contaminated soils. (Potentially Significant)

As explained in the setting section, the potential exists for contaminated soil or groundwater to be encountered during excavation or dewatering activities of conduit installation. If encountered, contaminated materials may be classified as a hazardous waste, a designated waste, or a special waste, depending on the type and degree of contamination. Disposal of excavated soils as standard demolition waste or use as fill for another construction site could result in a significant impact if those soils are contaminated. Disposal of materials in the vicinity of unknown but potentially present site contamination could pose a hazard to people, or animal or plant populations.

Mitigation Measure HAZ-2a: Conduct a list search of all subsequent activities requiring excavation.

A list search of known state and federal hazardous waste sites and leaking underground tanks within 1,000 feet of the excavation would be conducted prior to construction to identify high risk areas, where a moderate or high potential for encountering contaminated soil or groundwater may exist during shallow (six feet or less) excavations.

Mitigation Measure HAZ-2b: Characterize excavated materials for disposal.

Within high-risk areas identified by **Mitigation Measure HAZ-2a**, excavations of soil and or sediment that are suspected of being contaminated by visual observations of debris, discoloration or sheen, and/or odor would be observed by a trained health and safety professional equipped with an organic vapor analyzer (or other appropriate methods for detecting anticipated contaminants) to screen excavated materials and ensure worker safety. If contamination is encountered, excavated soils would be segregated and sampled relative to the profiling requirements of the accepting landfill, and disposed of in accordance with policies of the accepting landfill and applicable regulations.

Mitigation Measure HAZ-2c: Test groundwater.

Conduct groundwater testing for petroleum hydrocarbons before dewatering is performed. Treatment would be applied, in consultation with the applicable Regional Water Quality Control

Board and/or wastewater treatment plant operators, to ensure that all discharges meet applicable water quality requirements.

Significance after Mitigation: Less than Significant.

Impact HAZ-3: Possible exposure of the public or environment to hazardous materials sites. (Less than Significant)

As described in **Mitigation Measure HAZ-2a** a database list search would be performed for all subsequent activities requiring excavation prior to construction in order to locate areas that may be viewed as potential areas of hazardous materials contamination or locations where it is permitted to perform various hazardous waste activities.

State and federal laws regulate the manner in which contamination and hazardous conditions are investigated and remediated. Contaminated sites can be expected along some of the project routes, particularly in highly urbanized areas. The EPA and Cal-EPA maintain databases listing known contaminated sites. The databases include information on leaking underground storage tanks; hazardous waste generators; treatment, storage, and disposal facilities; sites known to have contaminated groundwater; and sites currently undergoing remediation or corrective action. Coordination with waste disposal activities with local regulatory agencies will be needed along the future alignments. This impact is considered less than significant because all listed hazardous materials sites would be identified prior to construction and excavated contaminated soils would be disposed of according to policies of the accepting landfill and applicable regulations, as described in **Mitigation Measure HAZ-2b**

Mitigation Measure: No mitigation is required.

Impact HAZ-4: Possible temporary limited emergency access. (Less than Significant)

The proposed project may involve the operation of heavy machinery. Emergency response times may be affected in areas where the proposed routes are adjacent to or within road rights-of-way. Emergency access will be regulated as a condition of road encroachment permits by the applicable regulatory agency. Also, as discussed in the Traffic and Transportation section of this chapter, a traffic control plan shall be prepared as required by the governing agency to further reduce impacts on traffic and emergency response vehicles and programs to less-than-significant levels.

Mitigation Measure: No mitigation is required.

Impact HAZ-5: Potential safety risk to employees from high voltage. (Less than Significant)

The installation of fiber optic cable facilities along transmission tower lines would expose workers to high voltage electricity. For all overhead transmission line installation, worker safety considerations require that the line(s) be deenergized during critical construction periods. The deenergization, or “outage,” would be coordinated with the California Independent System Operator (ISO) to ensure that customer service is not affected. In addition, electrical utilities, such as SDG&E, would require the use of their standard construction safety transmission line operating procedures. Only trained workers would be used for installation methods along transmission towers. The development of a Health and Safety Plan as described in **Impact HAZ-1** would reduce this impact to a less than significant level.

Mitigation Measure: No mitigation is required.

Impact HAZ-6: OPGW installation may cause possible safety hazard due to helicopter or other aircraft in the vicinity of public or public-use airport. (Potentially Significant)

The proposed project may involve fiber optic cable facility installation within an area covered within an airport land use plan or within 2 miles of an airport. Subsequent activities would not require permanent location of people, potentially resulting in ongoing safety hazards. With the implementation of the following mitigation measure, this impact is considered less than significant.

Mitigation Measure HAZ-6a: Prior to the final approval of subsequent actions, conduct the land use plan review and consultation as specified in Mitigation Measure LUP-1.

Mitigation Measure LUP-1 requires a procedure for review with appropriate land use planning guidance documents, including airport land use plans, to ensure consistency. Any specific limitations or requirements for construction or development within these jurisdictions shall be determined and become conditions of approval prior to the authorization of a project phase to ensure public safety.

Impact HAZ-7: Possible Temporary Exposure of People or Structures to Wildland Fires (Potentially Significant)

If construction occurs on or immediately adjacent to wildlands, structures and people could be at risk if wildland fires are started by construction of the proposed project. This impact is considered potentially significant.

Mitigation Measure HAZ-7a: Prepare a Fire Prevention and Management Plan.

A Fire Prevention and Management Plan will be prepared and implemented for construction in project areas with fire danger potential, such as areas covered in fire fuels like tall, dry grasses. The intent of this plan may be incorporated in requirements of local governing entities such as city or county planning departments.

REFERENCES – Hazards and Hazardous Materials

Los Angeles County Transportation Commission / U.S. Department of Transportation, Federal Transit Authority, Final Supplemental Environmental Impact Statement/Report, Los Angeles Rail and Rapid Transit Project – Metro Rail for the Mid-City Segment from Wilshire/Western to Pico/San Vicente in the City of Los Angeles with Stations at Olympic/Crenshaw and Pico/San Vicente, August 1992.

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