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4.7 HAZARDS AND HAZARDOUS MATERIALS

Acronyms

BMPs	Best Management Practices
CalARP	California accidental release prevention
Cal/OSHA	California Division of Occupational Safety and Health
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CUPA	Certified Unified Program Agency
DOT	Department of Transportation
DTSC	Department of Toxic Substances Control
EIR	Environmental Impact Report
GFD	Glendale Fire Department
HCS	Hazard Communication Standard
LEL	Lower explosive limit
LFG	Landfill gas
MSDS	Material Safety Data Sheet
OSHA	Occupational Safety and Health Administration
RCRA	Resource Conservation and Recovery Act of 1976
SCAQMD	South Coast Air Quality Management District
SCLF	Scholl Canyon Landfill
SPCC	Spill prevention, control, and countermeasure
SWPPP	Stormwater pollution prevention plan
SWRCB	State Water Resources Control Board
USEPA	United States Environmental Protection Agency
WUI	Widland-urban interface

This section evaluates the potential effects on the public or environment from the storage and use of hazardous materials for the proposed Project. This section also discusses reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. It presents the laws, ordinances, regulations and standards related to hazardous materials, describes existing conditions, identifies potential impacts on the public and environment from routine transport, use, and disposal of hazardous materials, and presents mitigation measures to reduce potentially significant impacts. In some cases, compliance with these existing laws and regulations would serve to reduce or avoid certain impacts that might otherwise occur with the implementation of the proposed Project.



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Data collection for this section was conducted through a review of the following general resources:

- City of Glendale municipal resources
- County of Los Angeles municipal resources
- Consultation with the Applicant

4.7.1 Environmental Setting

This section describes the potential hazards, other than geologic hazards, associated with the proposed Project. The potential safety issues associated with the transport, use or disposal of hazardous materials, impairment of the implementation of an adopted emergency response plan, airports and flight paths, or exposure of people or structures to risk of wildland fires, are analyzed in this section. A Phase I Environmental Site Assessment and Pre-Demolition Asbestos and Lead-Based Paint Survey were conducted for the facility and are included as Appendices G and H.

4.7.1.1 Existing Conditions

Hazardous material can be defined as any material that, because of its quantity, concentration, or physical or chemical characteristics, may pose a hazard to human health or the environment. Hazardous materials can be categorized as flammable and combustible material, toxic material, corrosive material, oxidizers, aerosols, and compressed gases. They can be highly reactive and cause irritation to skin and eyes. The term “hazardous substances” encompasses chemicals regulated by both the United States Department of Transportation (DOT) hazardous materials regulations and the United States Environmental Protection Agency (USEPA) hazardous waste regulations. Hazardous wastes require special handling and disposal because of their potential to damage to public health and the environment.

The proposed Project includes activities that will involve procedures, chemicals, and materials which pose some risk of fires, spills, gaseous releases, or other health and environmental hazards. These risks are primarily related to the transportation, storage, handling or disposal of potentially toxic and/or hazardous materials associated with construction, operation, and maintenance of the proposed Project.

4.7.1.2 Existing Hazards

As mentioned above, hazardous wastes require special handling and disposal, therefore California Department of Toxic Substances Control (DTSC) regulates the generation, handling, treatment and disposal of hazardous waste and regulates hazardous waste disposal and cleanup in the State, including from industrial sites with soil and groundwater contamination. The following resources provide information regarding the facilities or sites identified as meeting Government Code Section 65962.5 (Cortese List) requirements.

- Envirostor Data Management System: a comprehensive publicly available web site and data base (<http://www.envirostor.dtsc.ca.gov/public/>). EnviroStor provides information on permits and corrective action at hazardous waste facilities, as well as site investigations, cleanups, permitting, and planned, current, or completed corrective actions under DTSC’s oversight;



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- Water Board GeoTracker database: List of leaking Underground Storage Tank sites by county and fiscal year (<https://geotracker.waterboards.ca.gov/>);
- List of solid waste disposal sites identified by Water Board with waste constituents above hazardous waste levels outside the waste management unit (www.calepa.ca.gov);
- List of active Cease and Desist Orders and Cleanup and Abatement Orders from the Water Board (www.calepa.ca.gov).

No Cortese List cleanup sites are located within an approximately two-mile radius of the proposed Project site. There are no hazardous materials sites listed in the State Water Resources Control Board (SWRCB) Geotracker data management system for tracking contaminated sites that could potentially affect groundwater and are located within the vicinity of the proposed Project.

4.7.1.3 Surrounding Land Uses

Surrounding land uses within one mile of the proposed Project natural gas and water pipeline alignments consist exclusively of residential and recreational land uses within the Cities of Glendale, Pasadena, and Los Angeles. The nearest residence is located approximately one-half mile to the east. The Hollywood Burbank Airport is located approximately ten miles to the west. The proposed Project is approximately 9.75 miles outside the airport's area of influence boundary at the nearest point. The closest wastewater treatment plant is the Los Angeles-Glendale Water Reclamation Plant, approximately five miles to west. The nearest school, Dahlia Heights Elementary School is located approximately one mile to the southwest of the proposed Project site. Hospital/medical facilities and elderly care facilities are located within the City, approximately five to eight miles to the west from the proposed Project site.

The Glendale Fire Department (GFD) would be the first responder to a fire at the proposed Project site. The closest fire station, Station 23, located at 3303 E Chevy Chase Drive, is approximately five miles from the proposed Project.

4.7.1.4 Wildfire Risk

Wildfire risk is analyzed in greater detail in Section 4.14 (Wildfire). In general, wildland fires (wildfires) can occur in open spaces containing a mixture of flammable and nonflammable vegetation cover. The native areas surrounding the active landfill operation area are vulnerable to wildfires due to the steep topography, highly flammable scrub vegetation and limited access for firefighting. The County Fire Department has published Fire Hazard Severity Zone Maps for the City and has listed the proposed Project site, as shown on Tile 4 of these maps, in the Very High Fire Hazard Zone. The Fire Department has also published a map identifying Proposed High Fire Hazard Areas. The Scholl Canyon Landfill (SCLF) and the surrounding area are within the current High Fire Hazard Area. Discussed further in Section 4.14, despite the mapping designations, the proposed Project site has little wildfire potential due to the large areas with little or no native vegetation (fuel). The majority of the front face of the landfill has been landscaped with ornamental vegetation that is unlikely to burn as it is irrigated. In the case of a wildfire, expansive un-vegetated areas at the adjacent SCLF would provide access for site evacuation or waiting for a surrounding fire to be controlled (Sanitation District of Los Angeles County Planning Section



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and AECOM, 2014). In addition, site evacuation would be available via Glenoaks Boulevard or Scholl Canyon Road, depending on potential wildfire location.

4.7.2 Laws, Ordinances, Regulations and Standards

This section contains a summary of the Laws, Ordinances, Regulations, and Standards which are applicable to the proposed Project.

4.7.2.1 Federal

Federal Toxic Substances Control Act

The Federal Toxic Substances Control Act (1976) and the Resource Conservation and Recovery Act of 1976 (RCRA) established an USEPA-administered program to regulate the generation, transport, treatment, storage, and disposal of hazardous waste.

Resource Conservation and Recovery Act of 1976

The RCRA was amended in 1984 by the Hazardous and Solid Waste Act, which affirmed and extended the “cradle to grave” system of regulating hazardous waste.

Department of Transportation Hazardous Materials Regulations (49 Code of Federal Regulations 100-185)

U.S. DOT Hazardous Materials Regulations cover all aspects of hazardous materials packaging, handling, and transportation. Parts 107 (Hazard Materials Program), 130 (Oil Spill Prevention and Response), 172 (Emergency Response), and 177 (Highway Transportation), would all apply to the proposed Project and/or surrounding uses.

29 Code of Federal Regulations 1910.200 - Hazard Communication Standard

The federal Occupational Safety and Health Act of 1970 established the Occupational Safety and Health Administration (OSHA) within the United States Department of Labor. The original Act included language to the effect that employees should be apprised of all hazards to which they are exposed to on the job. In the early 1980's, OSHA implemented this instruction by enacting the Hazard Communication Standard (HCS) as 29 Code of Federal Regulations (CFR) 1910.1200. The HCS became effective in 1986. A fundamental premise of the HCS is that employees who may be exposed to hazardous chemicals in the workplace have a right to know about the hazards and how to protect themselves. For this reason, the HCS is sometimes referred to as the Worker Right-to-Know Legislation. The HCS sets forth guidelines and requirements in six areas: Chemical labeling, Material Safety Data Sheets (MSDS), Hazard Determination, Written Implementation Program, Employee Training, and Trade Secrets.



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4.7.2.2 State

California Health and Safety Code

The California DTSC, a department of the California Environmental Protection Agency, is the primary agency in the State for regulating hazardous waste, cleaning up existing contamination, and finding ways to reduce the amount of hazardous waste produced in California. DTSC regulates hazardous waste primarily under the authority of the Federal RCRA and the California Health and Safety Code (primarily Division 20, Chapters 6.5 through 10.6, and California Code of Regulations (CCR) Title 22, Division 4.5). Division 20, Chapter 6.5 deals with hazardous waste control through regulations pertaining to transportation, treatment, recycling, disposal, enforcement, and permitting of hazardous waste. Division 20, Chapter 6.10 contains regulations applicable to the cleanup of hazardous materials releases. CCR Title 22, Division 4.5 contains the environmental health standards for the management of hazardous waste. This includes standards for identification of hazardous waste (Chapter 11) and standards applicable to transporters of hazardous waste (Chapter 13).

Unified Hazardous Waste and Hazardous Materials Management Regulatory Program

The Unified Hazardous Waste and Hazardous Materials Management Regulatory Program (California Health and Safety Code, Division 20, Chapter 6.11, Sections 25404–25404.9) consolidates, coordinates, and makes consistent the administrative requirements, permits, inspections, and enforcement activities of the environmental and emergency response programs and provides authority to the Certified Unified Program Agency (CUPA). The CUPA is designed to protect public health and the environment from accidental releases and improper handling, storage, transportation, and disposal of hazardous materials and wastes. This is accomplished via inspections, emergency response, enforcement, and site mitigation oversight. The CUPA for Glendale is the GFD The CUPA is also responsible for reviewing and approving the hazardous materials business plan required for the proposed Project.

California Code of Regulations, Title 8 – Industrial Relations

Occupational safety standards exist in federal and state laws to minimize worker safety risks from both physical and chemical hazards in the workplace. The California Division of Occupational Safety and Health (Cal/OSHA) and the federal OSHA are the agencies responsible for assuring worker safety in the workplace. Cal/OSHA assumes primary responsibility for developing and enforcing standards for safe workplaces and work practices. These standards would be applicable to both construction and operation of the proposed Project. The standards included in CCR, Title 8 include regulations pertaining to hazard control (including administrative and engineering controls), hazardous chemical labeling and training requirements, hazardous exposure prevention, hazardous material management, and hazardous waste operations.

California Labor Code

The California Labor Code includes the regulation of the workplace to ensure appropriate training on the use and handling of hazardous materials and the operation of equipment and machines that use, store, transport, or dispose of hazardous materials. Division 5, Part 1, Chapter 2.5 ensures employees that are in charge of the handling of hazardous materials are appropriately trained on, and informed of, the



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materials they are handling. Division 5, Part 7 ensures employees who work with volatile flammable liquids are outfitted in appropriate safety gear and clothing.

California Department of Forestry and Fire Protection Fire Prevention Program

This program encompasses multiple facets of fire prevention techniques, including fire engineering, vegetation management, fire planning, education, and law enforcement. These techniques can include fire break construction and other fire fuel reduction activities that lessen the risk of wildfire to communities and evacuation routes, and brush clearance around communities, along roadways, and along evacuation routes. The fire prevention program also includes defensible space inspections, emergency evacuation planning, fire prevention education, fire hazard severity mapping, implementation of the state Fire Plan, and fire-related law enforcement activities such as arson investigation.

4.7.2.3 Local

Certified Unified Program Agency

The GFD is certified by the California Environmental Protection Agency as a CUPA, and is thereby responsible for the implementation and enforcement of regulations and guidelines for the CUPA that includes the following:

- Hazardous materials handling, release response plans and inventory Disclosure program (business plans).
- California accidental release prevention (CalARP) Program.
- Underground storage tank program pursuant to Health and Safety Code Section 25283 and as that section may be subsequently amended.
- Aboveground petroleum storage act requirements for spill prevention, control and countermeasure (SPCC) plans pursuant to Health and Safety Code Sections 25502(a)(1) and 25404 and as those sections may be subsequently amended.
- Hazardous waste generator and onsite hazardous waste treatment (tiered permitting) Programs pursuant to Health and Safety Code Sections 25502(a)(1) and 25404 and as those sections may be subsequently amended.
- California fire code hazardous material management plans and hazardous material inventory statements pursuant to this Volume VI of the Glendale Building and Safety Code, 2014.

City of Glendale General Plan, Safety Element

The Glendale General Plan, Safety Element includes the following policies applicable to hazardous materials:

Goal 5: Reduce threats to the public health and safety, and to the environment, from hazardous materials.

- **Policy 5-1:** The City shall strive to reduce the potential for residents, workers, and visitors to Glendale to being exposed to hazardous materials and wastes.



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4.7.2.4 Regional

County of Los Angeles General Plan

The goals and policies listed below are related to safety, and more specifically hazardous materials safety.

Policy AQ 1.1: Minimize health risks to people from industrial toxic or hazardous air pollutant emissions, with an emphasis on local hot spots, such as existing point sources affecting immediate sensitive receptors

4.7.3 Methodology and Thresholds of Significance

4.7.3.1 Methodology

The proposed Project area includes the greater SCLF, the proposed power generation facility footprint, and the natural gas and water pipeline rights-of-way through SCLF. Baseline conditions within this area are defined as the existing physical environmental setting by which a lead agency determines whether an impact is significant. (State CEQA Guidelines, § 15125, subd. (a)). A significant environmental effect or impact is defined as a substantial or potentially substantial change in the environment. (Pub. Resources Code, §§ 21068, 21100, subd. (d); 20 State California Environmental Quality Act [CEQA] Guidelines, § 15358.). The impact analysis in this section examines the changes in the environment, specifically related to hazardous materials, which may result from the construction and operation of the proposed Project. The Initial Study determined that the proposed Project would not emit hazardous emissions or handle hazardous materials within one-quarter mile of a school, would not be located on a Cortese List site, would not be located within an airport land use plan, or impair implementation of or interfere with an adopted emergency response plan. As such, these impacts are not analyzed within this section. Please refer to the Initial Study (Appendix A) for the full description of those impacts.

The analysis in this section is prepared with the understanding that the Applicant would obtain all required permits and approvals from other agencies and comply with all legally applicable terms and conditions associated with those permits and approvals. The analysis in this section relies on numerous publicly available maps and datasets, including those published by the City of Glendale, County of Los Angeles, aerial imagery and photographs, and site reconnaissance documenting the conditions.

4.7.3.2 Thresholds of Significance

As determined in the Initial Study, the proposed Project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school, as there are no schools located within one-quarter mile of the proposed Project site. The nearest school, Dahlia Heights Elementary School, is located approximately one mile to the southwest of the proposed Project site. In addition, the proposed Project site is not located on a Cortese List (Government Code 65962.5) cleanup site. Furthermore, there are no Cortese List cleanup sites located within a two-mile radius of the proposed Project site. There would be no Project-related impacts to airport uses, as the proposed Project site is located approximately ten miles from the nearest airport,



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Hollywood Burbank Airport. As such, the proposed Project location would not result in a safety hazard for people residing or working in the proposed Project area. The Project would comply with all applicable emergency response plans and emergency evacuation plans, and it would not impair implementation of such plans. In addition, the proposed Project does not include construction of residences or facilities that would require evacuation. As there would be no resulting impacts for these four topics, the following three checklist questions were determined to result in potentially significant impacts and are evaluated in this Environmental Impact Report (EIR).

In accordance with Appendix G of the State CEQA Guidelines, the proposed Project would have a significant impact related to hazards and hazardous materials if it would:

- Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.
- Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.
- Expose people or structures, either directly or indirectly, to a significant risk of loss., injury or death involving wildland fires.

4.7.4 Project Impacts

Threshold: Would the Project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

4.7.4.1 Construction

Construction activities associated with the proposed Project would use hazardous materials such as gasoline, diesel fuel, oil, acetylene, oxygen, antifreeze, and lubricants associated with construction equipment and other vehicles and would use and store hazardous materials such as mineral oil, cleaning solvents, paints, adhesives, vehicle fuels, oil, hydraulic fluid, and other vehicle and equipment maintenance fluids in the construction staging yards and at the location of the proposed Project.

Some materials associated with construction are considered hazardous because they are flammable and/or may contain toxic compounds, such as volatile organic compounds and heavy metals. All project construction phases would use gasoline, diesel fuel, hydraulic oils, equipment coolants, paints, solvents, and wastes that may include hazardous characteristics. All hazardous materials and wastes associated with the proposed Project construction would be handled, transported, and disposed of in compliance with all applicable federal, state, and local laws, regulations, and guidelines. MSDS will be made available at the construction-site for all workers as required by OSHA.

No acutely hazardous materials would be stored or used on location or at staging yards during construction. Acutely hazardous wastes are wastes that would cause death, disabling personal injury, or serious illness if exposed. These wastes are more hazardous than ordinary hazardous wastes. Minor spills or releases of ordinarily (as opposed to acutely) hazardous materials could occur due to improper handling and/or storage practices of hazardous materials during construction activities.



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The proposed Project would disturb more than one-acre of land, therefore a stormwater pollution prevention plan (SWPPP) would be prepared and implemented for Project construction, as required by the Construction General Permit Order (SWRCB Order No. 2009-009-DWQ as amended by Order 2010-0014-DWQ and Order 2012-0006-DWQ). The SWPPP shall contain Best Management Practices (BMPs) to address material handling and hazardous material management, as required by the Construction General Permit. BMPs identified in the proposed Project SWPPP will be implemented during Project construction to minimize the risk of an accidental release of hazardous materials and to provide the necessary information for emergency response. For more information on the SWPPP, please see Section 4.8 (Hydrology and Water Quality).

The City would also be required to prepare and submit the appropriate hazardous materials business plan for the construction and the operation of the proposed Project as required for the quantity of fuel stored on-site. The business plan would be submitted to the GFD (the designated CUPA), via the California Environmental Reporting System.

The activities and processes performed during the construction of the proposed Project have the potential to create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials, including but not limited to fuel/hazardous material spills during construction activities, and roadway accidents. However, compliance with applicable regulations, including the CCR Title 22, 23, 26, & 27, 29 CFR 1910.119, California Fire Codes CFR Title 24 and GFD Health and Safety code, impacts would be reduced to a less than significant level for the proposed Project to the public or the environment through the routine transport, use, or disposal of hazardous materials.

With preparation and implementation of the various required plans and compliance with existing regulations, the proposed Project is not expected to create a significant hazard to the public or the environment through the transport, storage, use, or disposal of hazardous materials. Avoiding collisions and other accidents through implementation of the required plans reduces the likelihood of any releases through the implementation of preventative measures and the likelihood of a large release would be further reduced. In accordance with the mitigation measures outlined below, potential impacts to the environment and sensitive receptors can be reduced to a less-than-significant level during construction of the proposed Project.

Mitigation Measures

HAZ-1: Worker Training

Prior to construction, all construction-site workers will be trained to recognize and respond to spills as mandated by the required plans, including which authorities to contact. The crews will be supplied with, and trained in, the use of containment devices and spill kits which contain at a minimum sorbent booms and pads, personal protective equipment and detailed emergency response guidance. The workers will also be trained in the proper response to a small incidental spill and the proper procedures in the event of a spill or landfill gas leak as the proper containment and disposal procedures. Records of all training will be sent to the City at the end of each Project construction phase along with a report detailing the training plans.



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HAZ-2: Maintain Equipment

Prior to entry on the construction-site, and periodically during construction, all construction equipment will be inspected for line breakage and leakage. Any equipment found to be chronically or continuously leaking will be either immediately removed off site or repaired either in place or within the equipment service areas.

HAZ-3: Equipment Service Areas

The Applicant shall designate at least one Equipment Service Area prior to the beginning of construction. The Equipment Service Area shall have a corrosion-resistant secondary containment system installed around the facility. The secondary containment system shall meet the following requirements (at a minimum):

- All hazardous materials (including fuel) must be stored either within the Equipment Service Area, or within their own secondary containment systems.
- The system must be impervious, cover the entire Equipment Service Area, and free of cracks or gaps.
- All primary containers shall be elevated above the surface of the secondary containment area.
- The secondary containment systems shall have sufficient capacity to contain at least 15 percent of the total volume of the primary containers or 110 percent of the volume of the largest container, whichever is greater.
- Precipitation or run-on must be prevented from entering the secondary containment system, unless the system has sufficient capacity to contain any run-on in addition to the volume capacity requirement.
- All waste (such as spills, leaks, or run-on) that accumulates in the secondary containment area must be removed and disposed of as soon as possible.

HAZ-4: Refueling Practices

Absorbent material such as secondary containment, pads, or drip pans will be placed underneath all vehicles and equipment during equipment refueling or maintenance. Refueling shall be performed within equipment service areas, parking areas, and gas and oil storage areas whenever possible. Any refueling activity on the site must also be conducted at least 100 feet (30.5 meters) from all designated drainages or areas of native vegetation. Any and all fluids drained from equipment will be collected in leak-proof containers and disposed of at an appropriate recycling facility if possible. If no recycling facility is available, an appropriate disposal facility may be used.

Level of Significance After Mitigation

As discussed above, construction of the proposed Project would involve the routine transport, use, or disposal of hazardous materials, and would require implementation of mitigation measures to reduce related risks to less than significant levels. Mitigation Measure HAZ-1 would ensure that all workers on the proposed Project were knowledgeable about hazardous waste requirements and possessed the proper training to respond to small incidental spills which may occur during construction activities. Mitigation



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Measures HAZ-2, HAZ-3, and HAZ-4 serve to strengthening the existing regulatory requirements by further removing potential spill sources and enhancing on-site spill containment capabilities.

Although construction of the proposed Project would routinely use small quantities of hazardous materials, with implementation of Mitigation Measures HAZ-1, HAZ-2, HAZ-3, and HAZ-4, Project-related construction impacts would be less than significant.

4.7.4.2 Operation

Hazardous materials on-site during the operations and maintenance phase would include an approximately 2,000-gallon lube oil storage tank, as well as a 3,000-gallon capacity waste oil storage tank. Spent materials will be disposed of in accordance with required rules and regulations. Waste oil contained in 55-gallon barrels will be located throughout the facility. The facility will also contain a refrigerant chiller system. The City proposes to use R134a refrigerant or equivalent allowed by CARB and South Coast Air Quality Management District (SCAQMD). R134a refrigerant is not a hazardous material and is commonly used instead of anhydrous ammonia which is a hazardous material. The chiller will be filled via a truck at Project startup and no additional filling should be required.

Transport, use, and disposal of hazardous materials operations phase of the proposed Project would be minimal, consisting primarily of waste lube-oil disposal after oil water separation. Therefore, impacts would be less than significant.

Mitigation Measures

No mitigation measures are required.

Threshold: Would the Project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

4.7.4.3 Construction

Accidents involving hazardous materials during construction could occur from small-scale releases during refueling or routine maintenance of equipment. Any releases that occur during construction would be reported to the applicable regulatory agencies and appropriately responded to in accordance with the required site Spill Contingency Plan. Further, the proposed Project is located on a portion of an active landfill that is not frequented by the general public. Any release of hazardous materials into the environment would be immediately addressed per applicable state and local regulations such as CCR Titles 22, 23, 26, & 27, 29 CFR 1910.119, California Fire Codes CFR Title 24 and GFD Health and Safety Code. The existing gas pipeline connecting the SCLF to the Grayson Power Plant would be purged with an inert gas such as nitrogen and capped/plugged on both ends and would therefore not represent a hazard to the public when decommissioned in place. Therefore, impacts during the construction phase would be less than significant.



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Mitigation Measures

No mitigation measures are required.

4.7.4.4 Operation

The proposed facility could be subject to risk of upset conditions associated with the explosive properties of methane gas. Risk of explosion occurs when the concentration of methane in the air exceeds its lower explosive limit (LEL). The LEL of methane is approximately five percent by volume in air, hence only a small proportion of landfill gas (LFG), which contains 50 percent by volume methane, is required to create an explosive condition. The risk of explosion is also associated with confined spaces that have limited ventilation. LFG explosions have occurred in structures on or near landfill sites. These occurrences are generally attributed to LFG migrating through the soil and accumulating within nearby structures. LFG explosions occur at an interface where the concentration of methane in the air is between five and 15 percent.

The SCLF contains an existing LFG collection system specifically designed to minimize LFG with emissions through the use of landfill surface or lateral migration underground. Boundary probes are routinely monitored to detect possible off-site LFG migration. In accordance with SCAQMD Rule 1150.1, surface gas monitoring is conducted every quarter and any exceedances found are mitigated. The proposed Project will not interfere with or modify the existing SCLF LFG collection system. The proposed facility will include an impermeable membrane under the building foundation with proper ventilation to prevent any LFG from entering the building. A plastic liner with perforated pipes under it will channel any LFG to the outside of all buildings. All buildings will also be equipped with methane detection monitors in each room. The proposed gas line will operate at the same pressure as a standard gas service line provided by SoCalGas to a typical retail customer. Installation of the service line would be subject to the provisions of 49 CFR Part 192, which provides design and construction measures specifically to reduce risk of upset conditions associated with operation of gas lines.

The Project's three-inch diameter natural gas pipeline would be designed in accordance with applicable pipeline safety standards and would be installed above ground except for road crossings. United States DOT, Pipeline and Hazardous Materials Safety Administration developed an equation that estimates the distance from a potential natural gas pipeline explosion at which death, injury, or significant property damage could occur. This distance is known as the "Potential Impact Radius". The Potential Impact Radius is calculated by the formula $r = 0.69 * (\text{square root of } (p*d^2))$, where 'r' is the radius of a circular area in feet surrounding the point of pipeline failure, 'p' is the maximum allowable operating pressure in the pipeline in pounds per square inch and 'd' is the nominal diameter of the pipeline in inches.

The natural gas pipeline proposed as part of the Project would have a maximum operating pressure of 20 pounds per square inch and a diameter of three inches. The distance from an explosion at which death, injury, or significant property damage could occur is 9.26 feet. Considering that there are no residences or other habitable structures within the Potential Impact Radius and the pipeline is in a location not open to public access, a pipeline explosion would have a low risk of resulting in death, injury, or significant property damage. The Project would result in decommissioning the existing 5.5-mile-long LFG pipeline from the SCLF to Grayson Power Plant. That pipeline has a maximum operating pressure of 50 pounds per square inch, a diameter of 14 inches, and a resulting distance from a potential explosion at which



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death, injury, or significant property damage could occur of 46 feet (Compliance Services Inc., 2016)⁶⁹. Implementation of the Project includes decommissioning the existing LFG pipeline and therefore reduces risks associated with a potential explosion from that pipeline.

As described in Section 2.0 (Project Description), the proposed Project would use 19-percent aqueous ammonia in the Selective Catalytic Reduction process to control emissions of nitrogen oxides from the generation equipment. 19-percent aqueous ammonia would be stored at the site in up to a 12,000-gallon capacity above ground storage tank.

According to the Clean Air Act Regulations (40 CFR 68, Section 112(r)), the threshold of aqueous ammonia above which this chemical presents a risk for formation of toxic plume is 20,000 gallons of solution and use of aqueous ammonia of concentration that exceeds 20 percent. The proposed aqueous ammonia volume and concentration are lower than the regulation threshold levels. The CalARP regulates the use of aqueous ammonia with a concentration of one percent or greater if a threshold quantity of 500 pounds of ammonia is reached. To evaluate the potential risks to the public from an accidental release of 19-percent aqueous ammonia, an offsite consequence analysis was performed using the USEPA approved Lawrence Livermore National Laboratory Atmospheric Dispersion Model for Denser-Than-Air-Releases (SLAB Model). The analysis assumed the complete failure of the 12,000-gallon capacity storage tank, the immediate release of the contents of the tank and the formation of an evaporating pool of aqueous ammonia within the secondary containment structure. Under this scenario, evaporative emissions of ammonia would be subsequently released into the atmosphere. The dispersion and transport of these emissions into the atmosphere would be subject to meteorological conditions at the time of the release. To be conservative, worst-case meteorological data were used in the offsite consequence analysis pursuant with USEPA's Risk Management Program Guidance for Offsite Consequence Analysis (EPA, 2009)⁷⁰.

To provide a conservative analysis of potential offsite consequences of an ammonia release, a concentration of 75 parts per million ammonia considered by the CEC to be the concentration the public could be exposed to during a one-time event without experiencing serious adverse effects was used for screening purposes. For comparison, the OSHA's Immediately Dangerous to Life and Health concentration for ammonia is 300 parts per million and USEPA's Accidental Release Prevention Program Toxic Endpoint concentration for ammonia is 200 parts per million. As it relates to the Project, a concentration of ammonia exceeding 75 parts per million beyond the SCLF property boundary would be considered a potentially significant impact.

The results of the Off-site Consequence Analysis for Aqueous Ammonia for the worst-case release of ammonia are included in Appendix I and indicate that the 75 parts per million concentration, would extend approximately 150 feet from the ammonia tank/release. This distance would not extend beyond the SCLF

⁶⁹ Compliance Services Inc., 2016, Part 192 Jurisdictional, Class Location, & High Consequence Area Analysis, Scholl Canyon Landfill Biogas Pipeline. Note: Calculation of Potential Impact Radius considers a natural gas factor specific to the landfill gas).

⁷⁰ EPA. 2009. Risk Management Program Guidance for Off-site Consequence Analysis. Available: <https://www.epa.gov/sites/production/files/2013-11/documents/oca-chps.pdf>.



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property boundary, and therefore such a condition represents a low public safety risk and would be a less than significant impact not requiring any mitigation.

With implementation of the features and measures and compliance with applicable regulations described above to address potential risk of upset conditions, impacts would be less than significant.

Mitigation Measures

No mitigation measures are required.

Threshold: Would the Project expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

4.7.4.5 Construction

Described in detail in Section 4.14 (Wildfire), the proposed Project and the surrounding area are within the current City's designated High Fire Hazard Area. Despite the mapping designations, the proposed Project site has little wildfire potential due to the large areas with little or no native vegetation (fuel). The majority of the front face of the landfill has been landscaped with ornamental vegetation that is less likely to burn as it is irrigated. In the case of a wildfire, expansive un-vegetated areas would provide access for site evacuation or waiting for a surrounding fire to be controlled (Sanitation District of Los Angeles County Planning Section and AECOM, 2014). The proposed Project will also contain a 12-inch water line, which will be connected to two fire hydrants for fire suppression as required by GFD. Access roads for the proposed Project site will be designed to specification of the Glendale Building and Safety Code and Glendale Fire Code in order to accommodate emergency response vehicles. Also, per Glendale Fire Prevention regulations, proper vegetation management procedures such as weed abatement and brush clearance programs will be required. Impacts associated with wildland fires are discussed further in Section 4.14 (Wildfire).

In addition, alternative site evacuation routes would be available via Scholl Canyon Road, and through various existing roads throughout the landfill depending on potential wildfire location. Further, the proposed Project does not involve development of residential dwellings and will not increase the size of the wildland-urban interface (WUI), defined as the area where structures and other human development meet or intermingle with undeveloped wildland or natural open space.

Therefore, with the implementation of Project elements that would minimize impacts of wildland fires such as fire hydrants, the mitigation measures described in Section 4.14 (Wildfire), and compliance with established local codes and regulations, impacts would be less than significant.

Mitigation Measures

FIRE-1: Fire Protection Plan

FIRE-2: Smoking and Open Fires

FIRE-3: Firefighting Water Supply



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Level of Significance After Mitigation

As discussed above, baseline wildfire risks would be not be exacerbated and significant risk of loss, injury or death involving wildland fires was unlikely to occur during construction of the proposed Project. Project design features, existing regulatory requirements, and implementation of Mitigation Measures FIRE-1, FIRE-2, and FIRE-3 would serve to ensure that the operation of the proposed Project would not result in an increased baseline risk exposure. Therefore, impacts would be less than significant.

4.7.4.6 Operation

Described in detail in Section 4.14 (Wildfire), operational impacts associated with exacerbated wildfire risks and significant risk of loss, injury or death involving wildland fires could occur if operation of the proposed Project would result in an increased baseline wildfire risk or generate increased unmitigated sources of ignition. Significant risks would be generated only if operation of the proposed Project were to result in a wildland fire which originated within the proposed Project, and then spread offsite into the surrounding San Rafael Hills. The Project does not propose any habitable structures or residences which could become threatened by fires originating onsite during operation of the proposed Project.

As discussed in Section 2.7 (Project Operations), the proposed Project would be operated adjacent to the existing LFG collection and LFG flaring systems. The blowers and flares would remain pursuant to the existing SCAQMD permit. After the proposed Project is in operation, the flares would only be used as required during power generation facility maintenance or in the unlikely event that there is excess LFG being produced that cannot be used for generating electricity. Fuel (vegetation) management would occur regularly in accordance with regulations. The electrical generating combustion engines would be operated within fire protection enclosures with fire suppression systems, and electrical equipment would be operated in enclosures insulated with an inert gas, thereby further reducing potential sources of ignition. The existing flares would remain and do not represent a new source of potential wildfire or an increase above the baseline wildfire risk. Discussed in Section 4.14.4.2, implementation of Mitigation Measure FIRE-4 (Firefighting Tools) would ensure that an abundance of fire protection capabilities remain on-site at all times and that on-site personnel can immediately respond in the event of an unforeseen circumstance. Implementation of Mitigation Measure FIRE-1 is also warranted, as it would also further reduce risk of wildfire during Project operation.

Mitigation Measures

FIRE-1: Fire Protection Plan

FIRE-4: Firefighting Tools

Level of Significance After Mitigation

As discussed above, baseline wildfire risks would be not be exacerbated and significant risk of loss, injury or death involving wildland fires was unlikely to occur during operation of the proposed Project. Project design features, existing regulatory requirements, and implementation of Mitigation Measures FIRE-1 and FIRE-4 would serve to ensure that the operation of the proposed Project would not result in an increased baseline risk exposure. Therefore, impacts would be less than significant.



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4.7.5 Cumulative Impacts

There would be a temporary increase in the transport, use, storage, and disposal of hazardous materials during construction of the proposed Project. These materials are common to the construction and industrial trade and are the subject of compliance with regulations, including the CCR Title 22, 23, 26, and 27, 29 CFR 1910.119, California Fire Codes CFR Title 24 and GFD Health and Safety code. Transport, use, and disposal of hazardous materials during the operation phase of the proposed Project would be limited to aqueous ammonia used in the refrigerant chiller system and waste oil generated during routine facility operation. The proposed Project would utilize the existing LFG collection system designed to eliminate/reduce LFG off site migration and surface migration from landfill operations. By combusting the LFG at the source, the proposed Project would result in abandoning the existing five-mile-long LFG pipeline between the SCLF and Grayson Power Plant. The existing LFG pipeline would be filled with inert nitrogen gas and plugged.

There are no nearby uses which, when considered with the proposed Project and others included in this analysis that increase any hazard risks on-site or to areas surrounding the site. The proposed Project would not have cumulatively considerable hazards and hazardous materials impacts.

