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4.9 Public Health

This section discusses activities that could potentially affect public health as they relate to the construction and operation of the Project. A health risk assessment (HRA) was performed to assess potential effects and public exposure associated with airborne emissions from the proposed Project. Section 4.9.1 describes the affected environment. Section 4.9.2 presents an environmental analysis of the operation of the power facility and associated facilities. Section 4.9.3 discusses cumulative effects. Section 4.9.4 discusses mitigation measures. Section 4.9.5 presents applicable laws, ordinances, and regulations; permit requirements; schedules; and agency contacts. Section 4.9.6 provides references cited or consulted in preparing this section. Appendix 4.9 provides the HRA support data.

Air will be the dominant pathway for public exposure to chemical substances released by proposed Project. Emissions to the air will consist primarily of combustion by-products produced by two internal combustion engines driving emergency generators. Potential health risks from combustion emissions will occur almost entirely by direct inhalation. To be conservative, additional pathways were included in the health risk modeling. The HRA was conducted following the guidelines established by the California Office of Environmental Health Hazard Assessment (OEHHA), the California Air Resources Board (CARB), and the South Coast Air Quality Management District (SCAQMD).

Combustion byproducts with established California Ambient Air Quality Standards (CAAQS) or National Ambient Air Quality Standards (NAAQS), including nitrogen oxides (NO_x), carbon monoxide (CO), and fine particulate matter (PM_{10}/$PM_{2.5}$) are addressed in Section 4.1, Air Quality. However, some discussion of the potential health risks associated with these substances is presented in this section. Human health risks associated with the potential accidental release of stored acutely hazardous materials, if applicable, are discussed in Section 4.5, Hazardous Materials

The Project will have affirmative air quality public health benefits by reducing approximately 233,000 metric tons of carbon dioxide emissions over a 20-year period compared to natural gas. The Project will also have the ability to provide zero-emission clean power to approximately 187,500 to 200,000 homes during peak load conditions.

4.9.1 Affected Environment

The proposed Project is located in census tract Orange County 423.15, which has a population of 5,881 people per the 2020 census (U.S. Census Bureau 2021). The 2022 Annual AB 2588 Air Toxics “Hot Spots” Report for the SCAQMD identified 13 facilities within the SCAQMD listed as Category 1 (high-level risk), which indicate a cancer risk exceeding 10 million or a total hazard index exceeding 1.0. There are 75 facilities within the SCAQMD listed as Category 2 (intermediate level risk), and 78 facilities that are listed as Categories 3 (low-level risk) (SCAQMD 2023). No other public health studies related to respiratory illnesses, cancers, or related diseases within a 6-mile radius of the Project site were identified in the last 5 years.

4.9.2 Environmental Analysis

The environmental effects on public health from the construction and operation of the proposed Project is presented in the following sections.

4.9.2.1 Significance Criteria

The significance criteria for cancer and non-cancer risks are described in the sections below.

Cancer Risk

Cancer risk is the probability or change of contracting cancer over a human lifetime. Any exposure to a carcinogen is assumed to have some probability of causing cancer; the lower the exposure, the lower the cancer risk. The SCAQMD has established a maximum incremental cancer risk threshold of ≥10 in 1 million (SCAQMD 2023). Cancer risk may be reduced by the Project due to the eliminate of particulate and other toxic emission.

Non-cancer Risk

Non-cancer health effects can be classified as either chronic or acute. In determining the potential health risks of non-cancerous air toxics, it is assumed there is a dose of the chemical of concern below which there would be no effect on human health. The air concentration corresponding to this dose is called the Reference Exposure Level. Non-cancer health risks are measured in terms of a hazard quotient, which is the calculated exposure of each contaminant divided by its Reference Exposure Level. Hazard quotients for pollutants affecting the same target organ are typically summed with the resulting totals expressed as hazard indices for each organ system. The SCAQMD has established that an incremental hazard index of less than 1.0 is an insignificant health risk (SCAQMD 2023). Reference Exposure Levels used in the hazard index calculations were those published in the Consolidated Table of OEHHA/CARB Approved Risk Assessment Health Values dated October 2, 2020. Other air quality health risks may be reduced by the Project due to the reduction in hazardous emissions from energy supply.

4.9.2.2 Construction Phase Effects

Construction of the proposed Project is estimated to require 15 months to complete. Construction activity and the resulting emissions at the Project site would be in line with emissions at most construction sites. Construction of the Project would result in the temporary addition of pollutants to the local airshed caused by on-site sources emissions. Internal combustion diesel engines used by construction equipment, haul trucks, and vendor trucks (i.e., delivery trucks) would emit diesel particulate matter (DPM). For risk assessment purposes, PM_{10} in diesel exhaust is considered DPM, originating mainly from off-road equipment operating at a defined location for a given length of time at a given distance from sensitive receptors. Less-intensive, more-dispersed emissions result from on-road vehicle exhaust (e.g., heavy-duty diesel trucks). For the construction HRA, the California Emissions Estimator Model (CalEEMod) scenario for the Project was adjusted to reduce diesel truck one-way trip distances to 0.25 miles to estimate emissions from truck pass-by at proximate receptors (SJVAPCD 2018). The air dispersion modeling methodology was based on SCAQMD's generally accepted modeling practices. Air dispersion modeling was performed using the U.S. Environmental Protection Agency's (EPA's) American Meteorological Society/Environmental Protection Agency Regulatory Model (AERMOD) Version 21112 modeling system (computer software) with the Lakes Environmental Software implementation/user interface, AERMOD View Version 12.0 The HRA followed the OEHHA 2015 guidelines (OEHHA 2015) and SCAQMD guidance to calculate the health risk impacts at all proximate receptors as further discussed below. The dispersion modeling included the use of standard regulatory default options. AERMOD parameters were selected consistent with the SCAQMD and EPA guidance and identified as representative of the Project site and Project activities. Principal parameters of this modeling are presented in Table 4.9-1.

Table 4.9-1. American Meteorological Society/Environmental Protection Agency Regulatory Model Principal Parameters

Parameter	Details
Meteorological Data	The latest 3-year meteorological data (2011–2014 and 2016) for the Mission Viejo Station were obtained from SCAQMD as the recommended meteorological station and input to AERMOD.
Urban versus Rural Option	Urban areas typically have more surface roughness, as well as structures and low-albedo surfaces that absorb more sunlight—and thus more heat—relative to rural areas. Urban dispersion option was selected due to the developed nature of the Project area and per SCAQMD guidelines.
Terrain Characteristics	Digital elevation data were imported into AERMOD, and elevations were assigned to receptors and emission sources, as necessary. Digital elevation data were obtained through the AERMOD View in the U.S. Geological Survey's National Elevation Dataset format with a resolution of approximately 30 meters, consistent with the SCAQMD guidance (SCAQMD 2022).
Source Release Characterizations	The modeled line of volume sources was placed to cover the site for exhaust emissions. A plume height dimension of 10 meters, a plume width dimension of 10 meters, and a release height of 5 meters was assumed for off-road equipment and diesel trucks (SCAQMD 2008).
Receptors	Discrete receptors were placed on rural residences and workers proximate to the Project site. Uniform cartesian grids of 25 meter spacing were placed over neighborhoods proximate to the Project site.

Notes: AERMOD = American Meteorological Society/EPA Regulatory Model; SCAQMD = South Coast Air Quality Management District; CalEEMod = California Emissions Estimator Model.
See Appendix 4.9 for additional information.

The health risk calculations were performed using the Hotspots Analysis and Reporting Program Version 2 (HARP2) Air Dispersion and Risk Tool (Version 21112). AERMOD was run with all sources emitting unit emissions (1 gram per second) to obtain the necessary input values for HARP2. The line of volume sources was partitioned evenly based on the 1-gram-per-second emission rate. The ground-level concentration plot files were then used to estimate the long-term cancer health risk to an individual and the non-cancer chronic health indices. There is no Reference Exposure Level for acute health impacts from DPM, and, thus, acute risk was not evaluated. Table 4.9-2 shows the results of the construction HRA.

Table 4.9-2. Construction Health Risk Assessment Results

Impact Parameter	Units	Project Impact	SCAQMD Threshold	Level of Significance
Maximum Individual Cancer Risk – Residential	Per Million	1.2	10	Less than significant
Chronic Hazard Index – Residential	Index Value	0.001	1.0	Less than Significant
Maximum Individual Cancer Risk – Worker	Per Million	0.02	10	Less than Significant
Chronic Hazard Index – Worker	Index Value	0.001	1.0	Less than Significant

Note: SCAQMD = South Coast Air Quality Management District.
Sources: Appendix 4.9 and SCAQMD 2023.

As shown in Table 4.9-2, Project construction activities would result in a Residential Maximum Individual Cancer Risk of 1.2 in 1 million and a worker maximum individual risk of 0.02, neither of which would not exceed the

significance threshold of 10 in 1 million. Project construction would result in a Residential Chronic Hazard Index of 0.001, which is below the 1.0 significance threshold.

4.9.2.3 Commissioning Phase and Operational Phase Effects

Commissioning Phase

Commissioning of the Project is not anticipated to have any additional impacts beyond what has been considered for operation or result in greater intensity of activity than construction, so a separate commissioning impact analysis is not provided.

Operational Phase

As discussed in Section 2, the Project will include the development of an approximately 250-megawatt battery energy storage system (BESS) and associated infrastructure. A BESS is stationary equipment that receives electrical energy and then utilizes batteries to store that energy to supply electrical energy at a future time. Power released or captured by the proposed Project will be transferred to and from the SDG&E Trabuco to Capistrano 138 kilovolt transmission line via a loop-in generation transmission line that will interconnect to an SDG&E switchyard to be constructed within the Project site. The Project will consist of lithium-ion batteries, installed in racks, and contained inside non-habitable enclosures; inverters; medium-voltage transformers; an SDG&E switchyard; a Project substation; and other associated equipment. The Project site would be monitored remotely and would only require periodic maintenance. Therefore, the proposed Project would not result in regular on-site emissions during normal operation, and health effects are anticipated to be less than those from construction. Therefore, no operational modeling was conducted.

4.9.2.4 Characterization of Risks from Toxic Air Pollutants

Toxic Air Contaminants (TACs). A substance is considered toxic if it has the potential to cause adverse health effects in humans, including increasing the risk of cancer upon exposure, or acute and/or chronic non-cancer health effects. A toxic substance released into the air is considered a TAC. TACs are identified by federal and state agencies based on a review of available scientific evidence. In the state of California, TACs are identified through a two-step process that was established in 1983 under the Toxic Air Contaminant Identification and Control Act. This two-step process of risk identification and risk management and reduction was designed to protect residents from the health effects of toxic substances in the air. In addition, the California Air Toxics “Hot Spots” Information and Assessment Act, Assembly Bill (AB) 2588, was enacted by the legislature in 1987 to address public concern over the release of TACs into the atmosphere. The law requires facilities emitting toxic substances to provide local air pollution control districts with information that will allow an assessment of the air toxics problem, identification of air toxics emissions sources, location of resulting hotspots, notification of the public exposed to significant risk, and development of effective strategies to reduce potential risks to the public over 5 years.

Examples include certain aromatic and chlorinated hydrocarbons, certain metals, and asbestos. TACs are generated by a number of sources, including stationary sources, such as dry cleaners, gas stations, combustion sources, and laboratories; mobile sources, such as automobiles; and area sources, such as landfills. Adverse health effects associated with exposure to TACs may include carcinogenic (i.e., cancer-causing) and non-carcinogenic effects. Non-carcinogenic effects typically affect one or more target organ systems and may be experienced on either short-term (acute) or long-term (chronic) exposure to a given TAC.

Diesel Particulate Matter. DPM is part of a complex mixture that makes up diesel exhaust. Diesel exhaust is composed of two phases—gas and particle—both of which contribute to health risks. More than 90% of DPM is less than 1 micrometer in diameter (about 1/70 the diameter of a human hair), and thus is a subset of $PM_{2.5}$ (CARB 2019). DPM is typically composed of carbon particles ("soot," also called black carbon) and numerous organic compounds, including over 40 known cancer-causing organic substances. Examples of these chemicals include polycyclic aromatic hydrocarbons, benzene, formaldehyde, acetaldehyde, acrolein, and 1,3-butadiene (CARB 2019). The CARB classified "particulate emissions from diesel-fueled engines" (i.e., DPM) (17 CCR 93000) as a TAC in August 1998. DPM is emitted from a broad range of diesel engines: on-road diesel engines, including trucks, buses, and cars; and off-road diesel engines, including locomotives, marine vessels, and heavy-duty construction equipment, among others. Approximately 70% of all airborne cancer risk in California is associated with DPM (CARB 2000). To reduce the cancer risk associated with DPM, CARB adopted a diesel risk reduction plan in 2000 (CARB 2000). Because it is part of $PM_{2.5}$, DPM also contributes to the same non-cancer health effects as $PM_{2.5}$ exposure. These effects include premature death; hospitalizations and emergency department visits for exacerbated chronic heart and lung disease, including asthma; increased respiratory symptoms; and decreased lung function in children. Several studies suggest that exposure to DPM may also facilitate development of new allergies (CARB 2019). Those most vulnerable to non-cancer health effects are children, whose lungs are still developing, and older people, who often have chronic health problems.

The estimated cancer risk to the maximally exposed individual receptor located at the proposed Project is below the 10×10^{-6} significance level as shown in Table 4.9-2. These risk estimates were calculated using assumptions that are highly health conservative. Evaluation of the risks associated with the Project emissions should consider that the conservatism in the assumptions and methods used in risk estimation considerably overstates the risks from Project emissions. Based on the results of this HRA, there are no significant public health effects anticipated from emissions of toxic pollutants to the air from the operation of the Project.

4.9.2.5 Hazardous Materials

Hazardous materials may be used and stored at the Project site during construction of the proposed Project. The hazardous materials stored in significant quantities on site and descriptions of their uses are presented in Section 4.5, Hazardous Materials Handling, of this application. Use of chemicals at the Project site will be following standard practices for storage and management of hazardous materials. The normal use of hazardous materials, therefore, will not pose significant effects on public health. While mitigation measures will be in place to prevent releases, accidental releases that migrate off site could result in potential effects to the public. See Section 4.5, Hazardous Materials Handling, for a full discussion of effects related to hazardous materials.

4.9.2.6 Odors

The occurrence and severity of potential odor impacts depends on numerous factors. The nature, frequency, and intensity of the source; the wind speeds and direction; and the sensitivity of receiving location each contribute to the intensity of the impact. Although offensive odors seldom cause physical harm, they can be annoying and cause distress among the public and generate citizen complaints.

Odors would be generated from vehicles and/or equipment exhaust emissions during construction of the Project. Odors produced during construction would be attributable to concentrations of unburned hydrocarbons from tailpipes of construction equipment, architectural coatings, and asphalt pavement application. Such odors would

disperse rapidly from the Project site and generally occur at magnitudes that would not affect substantial numbers of people. Therefore, impacts associated with odors during construction would be considered less than significant.

Land uses and industrial operations associated with odor complaints include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding. The Project does not include any of these uses. The Project entails operation of a BESS and would not create any new sources of odors during operation. Therefore, the Project would result in an odor impact that is **less than significant**.

4.9.2.7 Electromagnetic Field Exposure

Electromagnetic fields (EMFs) are composed of electric and magnetic fields and occur independently of one another. EMFs will exist at the Project site created by electric charges at the 60 hertz frequency used in transmission lines. Electric fields exist when these charges are not moving. Magnetic fields are created when the electric charges are moving. The magnitude of both electric and magnetic fields falls off rapidly as the distance from the source increases (proportional to the inverse of the square of distance).

Because the electric transmission lines do not typically travel through residential areas, and based on findings of the National Institute of Environmental Health Sciences (NIEHS 1999), EMF exposures are not expected to result in a significant effect on public health. The National Institute of Environmental Health Sciences report to the U.S. Congress found that "the probability that EMF exposure is truly a health hazard is currently small. The weak epidemiological associations and lack of any laboratory support for these associations provide only marginal scientific support that exposure to this agent is causing any degree of harm" (NIEHS 1999).

California does not regulate EMF exposure. However, the values estimated for similar transmission lines to the proposed Project are well below those established by states that do have limits. Other states have established regulations for EMF strengths that have limits ranging from 150 milligauss to 250 milligauss at the edge of the right-of-way, depending on voltage. The California Energy Commission does not currently specify limits on magnetic fields for standard types and sizes of transmission lines.

4.9.2.8 Legionella

Legionella bacteria are found naturally in freshwater environments like lakes and streams. The bacteria can become a health concern when they grow and spread in human-made water systems and environments, such as industrial cooling towers or centralized air cooling systems. Legionella bacteria can be transmitted to humans when they inhale small water droplets that contain the bacteria (CDC 2023). The proposed Project would not include a cooling tower or wet surface air cooler that could lead to the spread of legionella bacteria. Therefore, there is no requirement to prepare and implement a water treatment program designed to reduce health effects from exposure to legionella bacteria.

4.9.2.9 Summary of Effects

The results of the construction HRA shown in Table 4.9-2, demonstrate that the Project would not result in a significant incremental health risk from construction of the Project. As discussed previously, commissioning and operation of the Project would not result in emissions greater than those estimates for construction of the Project. Therefore, commissioning and operation of the Project would also not result in significant incremental health risks. Additionally, the results from the criteria air pollutant impact analysis (see Section 4.1, Air Quality) determined that

the Project would not result in significant impacts related to criteria air pollutant emissions. The Project will have affirmative air quality public health benefits by reducing approximately 233,000 metric tons of carbon dioxide emissions over a 20-year period compared to natural gas. The Project will also have the ability to provide zero-emission clean power to approximately 187,500 to 200,000 homes during peak load conditions.

4.9.3 Cumulative Effects

The California Energy Commission typically requires cumulative modeling if a proposed Project is within 0.5 miles of an existing major toxics emissions source. Based on CARB's Pollution Mapping Tool, the nearest tracked facility is a biogas power plant approximately 5 miles southeast of the Project site (CARB 2023). Therefore, there were no tracked sources within 0.5 miles of the Project site, and no cumulative effects from nearby sources are anticipated.

4.9.4 Mitigation Measures

Any mitigation measures (if applicable) are discussed in the section below.

4.9.4.1 Criteria Pollutants

Emissions of criteria pollutants would be reduced from compliance with applicable SCAQMD rules such as Rule 403, Fugitive Dust, and Rule 1113, Architectural Coatings (see Section 4.1, Air Quality). The proposed Project would not result in emissions that exceed the major source screening threshold of 250 tons per year. Therefore, the proposed Project would be considered a New Source Review minor source for all criteria air pollutants under federal regulations. As such, the Project will not be required to implement the requirements of the federal Prevention of Significant Deterioration program. Additionally, the proposed Project would not exceed the CAAQS or NAAQS for all pollutants. Therefore, mitigation is not required. Additionally, the Project may result in a reduction of criteria pollutants by offsetting emissions from fossil fuel energy facilities.

4.9.4.1.1 Toxic Air Contaminants

As discussed in Section 4.9.2.3, the proposed Project would not result in a significant incremental health risk impact, and there would be no significant health risks impact associated with exposure to TACs. Therefore, mitigation is not required.

4.9.4.1.2 Legionella

As discussed in Section 4.9.2.9, the proposed Project would include water cooling towers or wet surface cooling in the Project design. Therefore, a legionella mitigation plan is not required.

4.9.4.2 Hazardous Materials

See Section 4.5.4, Mitigation Measures, in Section 4.5, Hazardous Materials Handling, for a full discussion of mitigation measures related to hazardous materials.

4.9.5 Laws, Ordinances, Regulations, and Standards

4.9.5.1 Federal

The federal Clean Air Act, passed in 1970 and last amended in 1990, forms the basis for the national air pollution control effort. The EPA is responsible for implementing most aspects of the Clean Air Act, including setting NAAQS for major air pollutants; setting hazardous air pollutant standards; approving state attainment plans; setting motor vehicle emission standards; issuing stationary source emission standards and permits; and establishing acid rain control measures, stratospheric ozone (O_3) protection measures, and enforcement provisions. Under the Clean Air Act, NAAQS are established for the following criteria pollutants: O_3, CO, nitrogen dioxide (NO_2), sulfur dioxide (SO_2), PM_{10}, $PM_{2.5}$, and lead.

The NAAQS describe acceptable air quality conditions designed to protect the health and welfare of the citizens of the nation. The NAAQS (other than for O_3, NO_2, SO_2, PM_{10}, $PM_{2.5}$, and those based on annual averages or arithmetic mean) are not to be exceeded more than once per year. NAAQS for O_3, NO_2, SO_2, PM_{10}, and $PM_{2.5}$ are based on statistical calculations over 1- to 3-year periods, depending on the pollutant. The Clean Air Act requires the EPA to reassess the NAAQS at least every 5 years to determine whether adopted standards are adequate to protect public health based on current scientific evidence. States with areas that exceed the NAAQS must prepare a state implementation plan that demonstrates how those areas will attain the NAAQS within mandated time frames.

4.9.5.2 State

The state Air Toxics Program was established in 1983 under AB 1807 (Tanner). The California TAC list identifies more than 700 pollutants, of which carcinogenic and noncarcinogenic toxicity criteria have been established for a subset of these pollutants pursuant to the California Health and Safety Code. In accordance with AB 2728, the state list includes the (federal) HAPs. In 1987, the Legislature enacted the Air Toxics "Hot Spots" Information and Assessment Act of 1987 (AB 2588) to address public concern over the release of TACs into the atmosphere. AB 2588 law requires facilities emitting toxic substances to provide local air pollution control districts with information that will allow an assessment of the air toxics problem, identification of air toxics emissions sources, location of resulting hotspots, notification of the public exposed to significant risk, and development of effective strategies to reduce potential risks to the public over 5 years. TAC emissions from individual facilities are quantified and prioritized. "High priority" facilities are required to perform an HRA, and if specific thresholds are exceeded, the facility operator is required to communicate the results to the public in the form of notices and public meetings.

In 2000, CARB approved a comprehensive Diesel Risk Reduction Plan to reduce diesel emissions from both new and existing diesel-fueled vehicles and engines (CARB 2000). The regulation is anticipated to result in an 80% decrease in statewide diesel health risk in 2020 compared with the diesel risk in 2000. Additional regulations apply to new trucks and diesel fuel, including the On-Road Heavy Duty Diesel Vehicle (In-Use) Regulation, the On-Road Heavy Duty (New) Vehicle Program, the In-Use Off-Road Diesel Vehicle Regulation, and the New Off-Road Compression-Ignition (Diesel) Engines and Equipment program. These regulations and programs have timetables by which manufacturers must comply and existing operators must upgrade their diesel-powered equipment. There are several Airborne Toxic Control Measures that reduce diesel emissions, including In-Use Off-Road Diesel-Fueled Fleets (13 CCR 2449 et seq.) and In-Use On-Road Diesel-Fueled Vehicles (13 CCR 2025).

4.9.5.3 Local

Applicable Rules

Emissions that would result from Project construction may be subject to SCAQMD rules and regulations, which may include the following:

Rule 401 – Visible Emissions. This rule establishes the limit for visible emissions from stationary sources for a period or periods aggregating more than three minutes in any hour. This rule prohibits visible emissions dark or darker than Ringelmann No. 1 for periods greater than three minutes in any hour or such opacity which could obscure an observer's view to a degree equal or greater than does smoke.

Rule 402 – Nuisance. This rule prohibits the discharge of air pollutants from a facility that cause injury, detriment, nuisance, or annoyance to the public or damage to business or property.

Rule 403 – Fugitive Dust. This rule requires fugitive dust sources to implement best available control measures for all sources and prohibits all forms of visible particulate matter from crossing any property line. SCAQMD Rule 403 is intended to reduce PM_{10} emissions from any transportation, handling, construction, or storage activity that has the potential to generate fugitive dust.

Rule 431.2 – Sulfur Content of Liquid Fuels. The purpose of this rule is to limit the sulfur content in diesel and other liquid fuels for the purpose both of reducing the formation of SO_x and particulates during combustion and of enabling the use of add-on control devices for diesel-fueled internal combustion engines. The rule applies to all refiners, importers, and other fuel suppliers such as distributors, marketers, and retailers, as well as to users of diesel, low-sulfur diesel, and other liquid fuels for stationary-source applications in the SCAQMD. The rule also affects diesel fuel supplied for mobile source applications.

Rule 1113 – Architectural Coatings. This rule requires manufacturers, distributors, and end users of architectural and industrial maintenance coatings to reduce VOC emissions from the use of these coatings, primarily by placing limits on the VOC content of various coating categories.

4.9.5.4 Permits Required and Schedule

See Section 4.1.2, Regulatory Items Affecting New Source Review, in Section 4.1, Air Quality, for a description of the permitting requirements and schedules. See Section 4.5, Hazardous Materials Handling, for a discussion of hazardous materials business plan.

4.9.6 References

CARB (California Air Resources Board). 2000. *Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles*. CARB, Stationary Source Division, Mobile Source Control Division. October 2000. Accessed November 2023. http://www.arb.ca.gov/diesel/documents/rrpfinal.pdf.

CARB. 2019. "Overview: Diesel Exhaust and Health." Accessed May 2019. https://www.arb.ca.gov/research/diesel/diesel-health.htm.

CARB. 2023. CARB Pollution Mapping Tool (v.26). Accessed October 2023. https://www.arb.ca.gov/carbapps/pollution-map/

CDC (Centers for Disease Control and Prevention). 2023. "*Legionella* (Legionnaires' Disease and Pontiac Fever)." Accessed November 2023. https://www.cdc.gov/legionella/about/causes-transmission.html.

NIEHS (National Institute of Environmental Health Sciences). 1999. "Environmental Health Institute Report Concludes Evidence is 'Weak' that EMFs Cause Cancer." Press release. NEIHS, National Institutes of Health.

OEHHA (Office of Environmental Health Hazard Assessment). 2015. *Air Toxics Hot Spots Program Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments*. Air, Community, and Environmental Research Branch, OEHHA, California Environmental Protection Agency. February 2015. Accessed October 2023. http://oehha.ca.gov/air/hot_spots/2015/2015GuidanceManual.pdf.

SCAQMD (South Coast Air Quality Management District). 2008. *Final Localized Significance Threshold Methodology*. Revised July 2008. Accessed November 2023. http://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/final-lst-methodology-document.pdf?sfvrsn=2.

SCAQMD. 2017. *Risk Assessment Procedures for Rules 1401., 1401.1 and 212* (v. 8.1). September 2017. Accessed November 2023. http://www.aqmd.gov/docs/default-source/permitting/rule-1401-risk-assessment/riskassessproc-v8-1.pdf.

SCAQMD. 2022. *2022 Air Quality Management Plan*. Adopted December 2, 2022. http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2022-air-quality-management-plan/final-2022-aqmp/final-2022-aqmp.pdf?sfvrsn=16.

SCAQMD. 2023. *2022 Annual Report on AB 2588 Air Toxics "Hot Spots" Program*. April 2023. Accessed November 2023. http://www.aqmd.gov/docs/default-source/planning/risk-assessment/ab-2588-annual-report-2022_final.pdf?sfvrsn=6.

SJVAPCD (San Joaquin Valley Air Pollution Control District). 2018. "APR 2030 Project Ambient Air Quality Analysis Applicability Determination Under CEQA." June 12, 2018. https://ww2.valleyair.org/media/bo3hz35n/apr-2030.pdf.

U.S. Census Bureau. 2021. "Census Tract 423.15 Orange County Demographics and Housing Estimates." https://data.census.gov/table?g=1400000US06059042315&y=2021.