ATTACHMENT H

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

Final Environmental Assessment for Proposed Amended Rule 463 – Organic Liquid Storage

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PREFACE

This document constitutes the Final Environmental Assessment (EA) for Proposed Amended Rule (PAR) 463 – Organic Liquid Storage. The Draft EA was circulated for a 30-day public review and comment period from March 27, 2024 to April 26, 2024. No comment letters were received relative to the analysis in the Draft EA during the comment period.

Subsequent to the release of the Draft EA for public review and comment, the following modifications were made to the proposed project: 1) several definitions and other parts of the rule language were updated for clarity and consistency; 2) the secondary seal compliance schedule was updated; 3) the True Vapor Pressure (TVP) test procedure that allows for monthly averaging was added; 4) the mechanical shoe primary seal requirements for Internal Floating Roof (IFR) tanks were updated; 5) the procedure for conducting Optical gas imaging (OGI) inspections was updated; 6) requirements for vapor recovery systems were added; 7) the recordkeeping and reporting requirements for the TVP tests required for External Floating Roof (EFR) tanks, Vapor Recovery Unit (VRU) Performance Tests, and vapor recovery system performance tests were updated; 8) the exemption from Rule 463 specific to tanks regulated by Rule 1178 was updated to include the definition for Product Change; and 9) references to the revoked 1997 ozone National Ambient Air Quality Standard in the contingency for the South Coast Air Basin were removed.

Therefore, some modifications have been made to the Draft EA to make it a Final EA which include the aforementioned updates and additions made to PAR 463 after the Draft EA was released for the public review and comment period. Specifically, the CEQA analysis in the Final EA was updated to include: 1) an increase in the amount of estimated VOC emissions reductions from 0.43 ton per day to 1.65 ton per day; 2) revised inspection requirements for OGI tank farms to be conducted more frequently, from semi-annually to twice per year at four-to-eight month intervals; and 3) increased the compliance timeframe for the installation of secondary seals from 10 years to 22 years.

To facilitate identification of the changes between the Draft EA and the Final EA, modifications to the document are included as <u>underlined text</u> and text removed from the document is indicated by ~~strikethrough text~~. To avoid confusion, minor formatting changes are not shown in underline or strikethrough mode.

South Coast AQMD staff has evaluated the modifications made to PAR 463 after the release of the Draft EA for public review and comment and concluded that none of the revisions constitute significant new information, because: 1) no new significant environmental impacts would result from the proposed project; 2) there is no substantial increase in the severity of an environmental impact; 3) no other feasible project alternative or mitigation measure was identified that would clearly lessen the environmental impacts of the project and was considerably different from others previously analyzed, and 4) the Draft EA did not deprive the public from meaningful review and comment. In addition, revisions to PAR 463 and the analysis in response to verbal or written comments during the rule development process would not create new, avoidable significant effects. As a result, these revisions do not require recirculation of the Draft EA pursuant to CEQA Guidelines Sections 15073.5 and 15088.5. Therefore, the Draft EA has been revised to include the aforementioned modifications such that it is now the Final EA.

TABLE OF CONTENTS

Page No.

Page No.

LIST OF FIGURES

LIST OF TABLES

CHAPTER 1

PROJECT DESCRIPTION

INTRODUCTION

The California Legislature created the South Coast Air Quality Management District (South Coast AQMD) in 1977[1] as the agency responsible for developing and enforcing emission control rules and regulations in the South Coast Air Basin (Basin) and portions of the Salton Sea Air Basin and Mojave Desert Air Basin. By statute, the South Coast AQMD is required to adopt an air quality management plan (AQMP) demonstrating compliance with all federal and state ambient air quality standards for the areas under the jurisdiction of the South Coast AQMD[2]. Furthermore, the South Coast AQMD must adopt rules and regulations that carry out the AQMP[3]. The AQMP is a regional blueprint for how the South Coast AQMD will achieve air quality standards and healthful air; it contains multiple goals promoting reductions of criteria air pollutants including volatile organic compounds (VOC). The 2022 AQMP included Control Measure FUG-01 – Improved Leak Detection and Repair (LDAR), which explores the potential for newer leak detection technologies to improve current LDAR requirements thereby reducing VOC emissions from fugitive leaks from process and storage equipment at a variety of sources including, but not limited to, oil and gas production sites, petroleum refining, storage and transfer, etc.[4] Previously, the 2016 AQMP included Control Measure FUG-01 to utilize advanced remote sensing technologies to allow for faster identification and repair of leaks, and the 2012 AQMP included Control Measure FUG-03 – Further Reductions of Fugitive VOC Emissions, which identified the implementation of advanced leak detection technologies, including optical gas imaging (OGI), as a method to reduce the emissions impact from leaks.

In accordance with Assembly Bill (AB) 617, which was signed into state law in 2017, and the California Air Resources Board's (CARB) Community Air Protection Program which implements AB 617, the South Coast AQMD is required to take specific actions to reduce air pollution and toxic air contaminants from commercial and industrial sources to address the disproportionate impacts of air pollution in environmental justice communities. The Wilmington, Carson, and West Long Beach (WCWLB) community, which is qualified as a high priority area, identified in its Community Emission Reduction Plan (CERP) adopted on September 6, 2019, emissions from refineries as an air quality concern, and specified initiating rule development to amend Rule 1178 − Further Reductions of VOC Emissions from Storage Tanks at Petroleum Facilities (Rule 1178) to incorporate advanced leak detection technologies and requiring additional emission controls. In particular, Chapter 5b, Action 1 in the WCWLB CERP recommended incorporating new, advanced tools to modernize and improve LDAR programs for storage tanks at refineries to enhanced leak detection. Similarly, the South Los Angeles (SLA) community identified in its CERP adopted on June 3, 2022, emissions from operation of oil and gas facilities as an air quality concern. In particular, Chapter 5f, Action 1, recommended installation of emission reduction technologies at oil and gas facilities and specified initiating rule development to the Rule 1148 series to explore improved LDAR and requirements for lower-emission or zero-emission equipment. Rule 463 was not identified as an action for rule development within the 2019 WCWLB CERP or 2022 SLA CERP; however, Rule 463 regulates the same emission sources within the affected WCWLB and SLA communities.

[1] The Lewis-Presley Air Quality Management Act, 1976 Cal. Stats., ch. 324 (codified at Health and Safety Code Section 40400-40540).
[2] Health and Safety Code Section 40460(a).
[3] Health and Safety Code Section 40440(a).
[4] South Coast AQMD, Final 2022 Air Quality Management Plan, December 2022. http://www.aqmd.gov/home/air-quality/clean-air-plans/air-quality-mgt-plan

Rule 463 applies to tanks that meet the following criteria: 1) above-ground stationary tanks with a capacity of 75,000 liters (19,815 gallons) or greater used for storage of organic liquids, 2) any above-ground tank with a capacity between 950 liters (251 gallons) and 75,000 liters (19,815 gallons) used for storage of gasoline, and 3) any stationary tank with a Potential For VOC Emissions of six tons per year or greater used in Crude Oil And Natural Gas Production Operations.

Proposed Amended Rule 463 (PAR 463) establishes more stringent leak detection and repair and control requirements, such as optical gas imaging tank farm inspections every other calendar week, and additional control requirements for installing domes (referred to as doming) and secondary roof seals. PAR 463 will establish Best Available Retrofit Control Technology (BARCT) requirements, including leak inspections using OGI devices. Additionally, PAR 463 will include contingency measures for both the Coachella Valley and the South Coast Air Basin, which will require more frequent OGI inspections, if triggered.

The federal Clean Air Act (CAA) requires State implementation Plans (SIPs) to include contingency measures which are triggered if an area fails to make reasonable further progress or fails to attain an air quality standard by the applicable date. Therefore, South Coast AQMD has prepared the Coachella Valley Contingency Measure State Implementation Plan (SIP) Revision for the 2008 8-Hour Ozone Standard focused on satisfying the requirement for contingency measures elements for the plan. Specifically, South Coast AQMD is amending Rule 463 to introduce a contingency measure to partially satisfy the federal CAA contingency requirement by establishing more frequent OGI inspections every calendar week for tanks storing product with a TVP of 5.0 psia or greater.

PAR 463 applies to approximately 1,600 tanks located at 429 facilities including refineries, bulk storage, loading, and oil production facilities. There are four major categories of storage tanks subject to Rule 463, as follows: fixed roof tanks, external floating roof tanks, domed external floating roof tanks, and internal floating roof (IFR) tanks. Storage tanks emit VOC through openings inherent in the tank design. Rule 463 requires the use of seals and covers to reduce the amount of VOC that can migrate out of the tank through the tank openings. Tank openings on fixed roof tanks include, but are not limited to, vapor recovery connection points, pressure vacuum vents and sample hatches. Floating roof tanks also contain openings that include the annular space around the floating roof, guidepoles, rim vents, pressure vents, hatches, and roof legs. Proposed amendments to Rule 463 are based on determination of feasible and cost-effective technologies and methods that were assessed through a BARCT analysis. Rule 463 already requires controls on all roof openings and as part of the PAR 463 rule development, staff reviewed additional technologies and methods to further reduce emissions from tank operation and leaks. The proposed amendments will reduce VOC emissions from these sources by approximately ~~0.43~~1.65 ton per day.

Implementation of PAR 463 is expected to result in less than significant increases of criteria air pollutants in the short-term due to construction impacts, and an overall long-term decrease in VOC emissions through minimizing fugitive losses from storage tanks at petroleum facilities.

CALIFORNIA ENVIRONMENTAL QUALITY ACT

The California Environmental Quality Act (CEQA) is comprised of Public Resources Code Section 21000 *et seq.* and CEQA Guidelines which are codified at Title 14 California Code of Regulations, Section 15000 *et seq.* CEQA requires all potential adverse environmental impacts of proposed projects be evaluated and methods to reduce or avoid identified significant adverse

environmental impacts of these projects be implemented, if feasible. [Public Resources Code Section 21061.1 and CEQA Guidelines Section 15364]. The purpose of the CEQA process is to inform decision makers, public agencies, and interested parties of potential adverse environmental impacts that could result from implementing a proposed project and to identify feasible mitigation measures or alternatives, when an impact is significant.

Public Resources Code Section 21080.5 allows public agencies with regulatory programs certified by the Secretary of the Resources agency to prepare a plan or other written documents in lieu of a Negative Declaration or Environmental Impact Report (EIR). The South Coast AQMD's regulatory program was certified on March 1, 1989. [CEQA Guidelines Section 15251(l)]. In addition, the South Coast AQMD adopted Rule 110 – Rule Adoption Procedures to Assure Protection and Enhancement of the Environment, which implements the South Coast AQMD's certified regulatory program. Under the certified regulatory program, the South Coast AQMD typically prepares an Environmental Assessment (EA) to evaluate the environmental impacts for rule projects proposed for adoption or amendment.

The proposed amendments to Rule 463 are a discretionary action subject to South Coast AQMD Governing Board consideration that has the potential for resulting in changes to the environment, and therefore, is considered a "project" as defined by CEQA. [CEQA Guidelines Section 15378]. The lead agency is the "public agency that has the principal responsibility for carrying out or approving a project that may have a significant effect upon the environment." [Public Resources Code Section 21067]. Since the South Coast AQMD Governing Board has the primary responsibility for approving and carrying out the entire project as a whole, the South Coast AQMD is the most appropriate public agency to act as CEQA lead agency for the proposed project. [CEQA Guidelines Section 15051(b)].

The proposed project would further reduce VOC emissions from above-ground storage tanks containing volatile organic liquids through establishing optical gas imaging tank farm inspections every other calendar week and additional control requirements for doming, emission control systems, and secondary seals. However, South Coast AQMD's review of the proposed project also shows that the activities that facility operators may undertake to comply with PAR 463 may also create secondary adverse environmental impacts that would not result in significant impacts for any environmental topic area. Thus, the analysis of PAR 463 indicates that the type of CEQA document appropriate for the proposed project is an EA with no significant impacts. The EA is a substitute CEQA document, which the South Coast AQMD, as lead agency for the proposed project, prepared in lieu of a Negative Declaration with no significant impacts [CEQA Guidelines Section 15252], pursuant to the South Coast AQMD's Certified Regulatory Program [Public Resources Code Section 21080.5, CEQA Guidelines Section 15251(l); South Coast AQMD Rule 110].

The EA includes a project description in Chapter 1 and an Environmental Checklist in Chapter 2. The Environmental Checklist provides a standard tool to identify and evaluate a proposed project's adverse environmental impacts and the analysis concluded that no significant adverse impacts would be expected to occur if the proposed project is implemented. Because the proposed project would have no statewide, regional. or areawide significance, no CEQA scoping meeting is required to be held pursuant to Public Resources Code Section 21083.9(a)(2). Further, pursuant to CEQA Guidelines Section 15252, since no significant adverse impacts were identified, no alternatives or mitigation measures are required.

The Draft EA ~~is being~~ was released for a 30-day public review and comment period from March 27, 2024 to April 26, 2024. No comment letters were received during the comment period. ~~Any comments on the analysis presented in this Draft EA received during the public comment period will be responded to and included in an appendix of the Final EA.~~

Subsequent to the release of the Draft EA for public review and comment, the following modifications were made to the proposed project: 1) several definitions and other parts of the rule language were updated for clarity and consistency; 2) the secondary seal compliance schedule was updated; 3) the True Vapor Pressure (TVP) test procedure that allows for monthly averaging was added; 4) the mechanical shoe primary seal requirements for Internal Floating Roof (IFR) tanks were updated; 5) the procedure for conducting Optical gas imaging (OGI) inspections was updated; 6) requirements for vapor recovery systems were added; 7) the recordkeeping and reporting requirements for the TVP tests required for External Floating Roof (EFR) tanks, Vapor Recovery Unit (VRU) Performance Tests, and vapor recovery system performance tests were updated; 8) the exemption from Rule 463 specific to tanks regulated by Rule 1178 was updated to include the definition for Product Change; and 90) references to the revoked 1997 ozone National Ambient Air Quality Standard in the contingency for the South Coast Air Basin were removed.

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Prior to making a decision on the adoption of the proposed project, the South Coast AQMD Governing Board must review and certify the Final EA, including responses to comments, as providing adequate information on the potential adverse environmental impacts that may occur as a result of amending Rule 463.

PROJECT LOCATION

The proposed project applies to owners or operators of tanks that meet the following criteria: 1) stationary above-ground tanks with a capacity of 75,000 liters (19,815 gallons) or greater used for storage of organic liquids, 2) any above-ground tank with a capacity between 950 liters (251

gallons) and 75,000 liters (19,815 gallons) used for storage of gasoline, and 3) any stationary tank with a Potential For VOC Emissions of six tons per year or greater used in Crude Oil and Natural Gas production operations. PAR 463 applies to approximately 1,600 tanks located at 429 facilities including refineries, bulk storage, loading, and oil production facilities which are located throughout South Coast AQMD's jurisdiction. However, initial estimates indicated that approximately 20 tanks will need to be domed and 22 tanks will need secondary roof seals installed.

South Coast AQMD's jurisdiction covers an area of approximately 10,743 square miles and includes the four-county Basin (all of Orange County and the non-desert portions of Los Angeles, Riverside and San Bernardino counties), and the Riverside County portion of the Salton Sea Air Basin and the non-Palo Verde, Riverside County portion of the Mojave Desert Air Basin. The Basin is a subarea of South Coast AQMD's jurisdiction; it is bounded by the Pacific Ocean to the west and the San Gabriel, San Bernardino, and San Jacinto mountains to the north and east. The Riverside County portion of the Salton Sea Air Basin, which is a federal nonattainment area known as the Coachella Valley Planning Area, is bounded by the San Jacinto Mountains to the west and spans the eastern boundary of the Coachella Valley up to the Palo Verde Valley (see Figure 1-1).

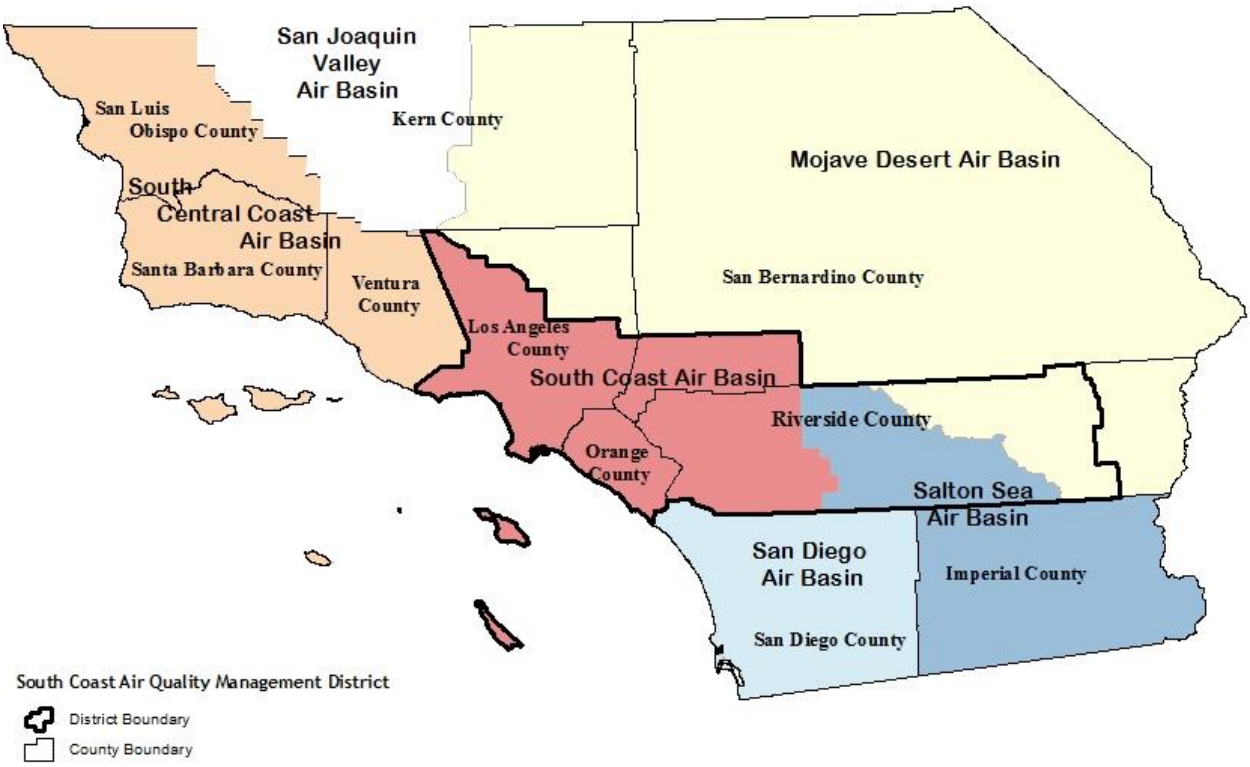

Figure 1-1
Southern California Air Basins and South Coast AQMD's Jurisdiction

PROJECT BACKGROUND

Rule 463 was adopted in August 1977 and subsequently amended six times. The 1984 amendment added a criterion for hydrogen sulfide content in crude oil contained in floating roof tanks; a subsequent amendment in March 2005 removed this limitation based on a comparative review of

similar regulations within the state and at the federal level. The December 1990 amendment addressed SIP deficiencies inconsistent with U.S. EPA policies or requirements. The March 1994 amendment restructured the rule, clarified rule language, streamlined compliance activities by including a self-compliance program, and corrected rule deficiencies identified by the U.S. EPA and California Air Resources Board (CARB). The November 2011 amendment harmonized test methods and leak standards with Rule 1178. The most recent amendment to Rule 463 in May 2023, addressed U.S. EPA's limited disapproval of CARB's Oil and Gas Methane Rule by aligning the applicability threshold with U.S. EPA's 2016 Control Techniques Guidelines for the Oil and Natural Gas Industry.

Since its adoption on August 8, 1977, Rule 463 has been applicable to any tank regardless of type of business that meets the following criteria: 1) stationary above-ground tanks with a capacity of 75,000 liters (19,815 gallons) or greater or, 2) any above-ground tank with a capacity between 950 liters (251 gallons) and 75,000 liters (19,815 gallons) used for storage of gasoline. In response U.S. EPA's limited disapproval of CARB's Oil and Gas Methane Rule, Rule 463 was amended on May 2023 to include any stationary tank with a potential for VOC emissions of six tons per year or greater used in crude oil and natural gas production operations.

In accordance with AB 617, which was signed into state law in 2017, and the CARB Community Air Protection Program which implements AB 617, the South Coast AQMD is required to take specific actions to reduce air pollution and toxic air contaminants from commercial and industrial sources to address the disproportionate impacts of air pollution in environmental justice communities, such as Wilmington, Carson, and West Long Beach. The WCWLB CERP, adopted on September 6, 2019 by this community, identified emissions from refineries as an air quality concern, and Chapter 5b, Action 1 in the WCWLB CERP recommended incorporating new, advanced tools to modernize and improve LDAR programs for storage tanks at refineries to enhanced leak detection. Similarly, the South Los Angeles (SLA) community identified in its CERP adopted on June 3, 2022, emissions from operation of oil and gas facilities as an air quality concern. In particular, Chapter 5f, Action I, recommended installation of emission reduction technologies at oil and gas facilities and specified initiating rule development to the Rule 1148 series to explore improved LDAR and requirements for lower-emission or zero-emission equipment. Rule 463 was not identified as an action for rule development within the 2019 WCWLB CERP or 2022 SLA CERP; however, Rule 463 regulates the same emission sources within the affected WCWLB and SLA communities. Recommendations for potential amendments included improving current leak detection and repair requirements by incorporating advanced leak detection technologies and requiring additional controls. Also, both the 2016 AQMP and 2022 AQMP included Control Measure FUG-01 – Improved Leak Detection and Repair (LDAR) which was specifically designed to utilize advanced remote sensing technologies to allow for the faster identification and repair of leaks from equipment at oil and gas and other facilities that are currently required to maintain a LDAR program.

In 2016, U.S. EPA released the 2016 CTG for the Oil and Gas Industry. Nonattainment areas classified as "Moderate" or worse, such as South Coast AQMD, are required to implement Reasonably Available Control Technology (RACT) for VOC sources covered by the CTG. Storage tanks covered by the 2016 CTG include those with the potential for VOC emissions of six tons per year or more, and are located at oil and natural gas facilities (excluding distribution); the RACT recommendation for such storage tanks is 95% emission control. While Rule 463 contained requirements for 95% emission control or greater, the rule did not apply to storage tanks based on the quantity of their potential VOC emissions. Rather, Rule 463 was applicable to storage tanks

based on the capacity and the TVP of the material stored. Because the U.S. EPA stated that it was unclear whether all tanks subject to the 2016 CTG were covered by the applicability requirements, Rule 463 was amended on May 5, 2023 to ensure the applicability would use direct terms to include storage tanks subject to the U.S. EPA's 2016 CTG for the Oil and Gas Industry.

PAR 463 is now being amended to partially implement the 2022 AQMP Control Measure FUG-01 and include a contingency measure in the event that the U.S. EPA determines that the South Coast AQMD had failed to meet an RFP milestone or to attain ~~an~~ applicable ozone NAAQS, and assist to achieve the goals of the WCWLB and SLA CERPs.

TECHNOLOGY OVERVIEW

The following discussion provides a general overview of the control technologies and enhanced leak detection technologies associated with aboveground storage tank emissions.

Control Technologies

Domes

Domes are roofs that can be installed onto EFR tanks. They are typically a geodesic dome shape and made of lightweight material such as aluminum. Domes that are affixed onto EFR tanks are not vapor tight and have vents along the bottom of the dome where it meets the tank shell. This is a required design for floating roof tanks to allow the floating roof to move up and down without adverse effects. Domes are effective at reducing emissions from tanks by eliminating wind moving over the external floating roof. Wind can carry vapors out from inside the tank through the secondary roof seals which float. It is estimated that installing domes on EFR tanks storing crude oil can reduce standing losses by 50%-70%.

Proximity Switches

Proximity switches are sensors designed to detect when sample hatch covers are open and are commonly used at remote oil well sites that are not inspected regularly. Proximity switches can also be used on pressure vacuum relief vents (PVRVs). The switch can alert facility personnel when a sample hatch cover or PVRV is open and result in quicker repair timelines and smaller emissions impacts. Limitations to using proximity switches include small may go undetected and other leaks that may occur from the monitored equipment would not be detected such as leaks from the gaskets or connection points.

Cable Suspension Systems

Cable suspended floating roofs are designed with cable suspension systems to support the floating roof and remove the need for roof legs. Emissions from IFR tanks are reduced with cable suspension systems by the elimination of floating roof leg penetrations that provide a potential opening where VOC can migrate from below the floating roof to atmosphere.

Emission Control Systems (Vapor Recovery)

Emission control systems are connected to fixed roof tanks and control VOC emissions with carbon adsorption or combustion. Compliance reports containing performance tests results for vapor recovery systems used at facilities applicable to Rule 463 were reviewed. All compliance reports reviewed stated the vapor recovery systems were compliant but not all specified the vapor recovery efficiency. Only the initial performance tests stated the control efficiency for the three

combustion vapor recovery systems which were specified at over 99% combustion efficiency. During a site visit, staff was informed that the facility's carbon adsorption system performs at over 99% emission control, which was further confirmed with performance test reports. ~~All compliance reports reviewed stated the vapor recovery systems were compliant but did not specify the vapor recovery efficiency. The initial performance efficiency for three combustion vapor recovery systems were specified at over 99% combustion efficiency.~~ During a site visit, staff was informed that the facility's carbon adsorption system performs at over 99% emission control, which was further confirmed with performance test reports. During the last rulemaking for Rule 1178 it was determined that 98% efficiency is achievable based on performance test results for combustion and carbon adsorption systems.

Staff recommends increasing the emission control system efficiency requirements to 98% emission control, by weight, based on available performance test results and information obtained at site visits.

Seals

Primary and secondary seals are used on floating roof tanks to seal the annular space between the floating roof and the tank shell to prevent VOC vapors from migrating out of the tank. Seal systems can have only a primary seal or a primary seal and secondary seal. Internal floating roof tanks are not required to have both a primary seal and secondary seal.

Staff identified five IFR tanks that are not equipped with secondary seals applicable to the rule.

Leak Detection Technologies

Multiple leak detection technologies and methods were considered to reduce the emissions impact from leaks from storage tanks. A review of continuous monitoring technologies including fixed gas sensor networks and open path device systems was conducted. Periodic monitoring with handheld optical gas imaging devices was also reviewed.

Continuous Monitoring Systems

Continuous monitoring solutions using open path detection and fixed gas sensor networks were assessed in 2023 for the Rule 1178 rulemaking. It was determined that the best solution for monitoring tanks is to require periodic monitoring with handheld optical gas imaging devices due to the nature of storage tank operations and the ability to identify small and large leaks. Continuous monitoring systems are limited in their ability to detect smaller leaks because they are installed at a distance from the tank. Depending on the detection technology of the continuous monitoring system, a leak may need to be significantly large at the source to be detected and has the potential to go undetected. One significant drawback to requiring stationary continuous monitoring system of gas sensors or open path devices, is the chance that a large leak goes undetected because it does not make contact with the fixed sensor or emitted open path beam. Due to the potential for the large emissions impact from large leaks, continuous monitoring systems with sensors that must come in contact with the VOC vapor may not be the most effective technologies to reduce the emissions impact from leaks from tanks. Another drawback to requiring continuous monitoring systems is the delayed implementation timeline due to the plan approval and installation timeframes.

Staff does not propose requiring the use of continuous monitoring systems in PAR 463. The continuous monitoring systems analyzed were all above the VOC cost-effectiveness threshold. Exceeding the cost-effectiveness threshold in combination with the limitations of the technologies

when compared to manual OGI inspections resulted in staff's proposal to not require continuous monitoring systems as BARCT. However, due to stakeholder interest in the opportunity to utilize continuous monitoring systems, staff will include a provision that allows for the use of U.S. EPA approved continuous monitoring methods provided they can achieve equivalent or more stringent monitoring as manual OGI inspections.

Optical Gas Imaging (OGI)

An optical gas imaging camera uses infrared technology to visualize vapors and has different detectors capable of visualizing a variety of gas wavelengths. VOC wavelengths range between 3.2 to 3.4 micrometers. The difference in views is shown in Figure 1-2 below. OGI cameras with the ability to detect or visualize in this range of wavelength contain a cryocooler that is integrated into the sensor which increases the sensitivity of the camera and the ability to detect smaller leaks. OGI cameras are widely used a screening tool for leak detection purposes.

Figure 1-2
View with Naked Eye Compared to View with an OGI Camera

Fixed OGI systems have been implemented at well sites and compression stations for continuous emissions monitoring. Handheld OGI cameras, as seen in Figure 1-3, are used widely by leak detection service providers as well as facilities for periodic monitoring.

Figure 1-3
OGI camera

Fixed OGI cameras may not catch all leaks that can be identified during an inspection where a portable OGI device is manually operated. Fixed OGI cameras are limited in the number of angles from which a tank can be viewed and would likely be stationed further away from an emissions source compared to a person conducting an inspection with a portable OGI device. Stationary and portable devices both have the capability to detect large leaks, however, there is greater chance that smaller leaks would be identified with a manual field inspection than with a stationary camera because tanks can be monitored in close proximity using portable devices such as handheld OGI cameras and toxic vapor analyzers (TVA).

Staff proposes OGI tank farm inspections every other calendar week for tanks that meet the capacity and vapor pressure thresholds that trigger control requirements in Rule 463 and additional semi-annual component inspections for tanks.

PROJECT DESCRIPTION

Rule 463 limits VOC emissions from any stationary storage tank with a potential for VOC emissions of six tons per year or greater used in crude oil and natural gas production operations, above-ground stationary tanks with a capacity of 19,815 gallons or greater used to store organic liquids, and above-ground tanks with a capacity between 251 and 19,815 gallons used to store gasoline. PAR 463 establishes requirements for: 1) conducting inspections, including but not limited to optical gas imaging tank farm inspections every other calendar week; 2) installing domes on EFR tanks storing organic liquids with a true vapor pressure of 3.0 psia or greater; 3) installing secondary seals on all floating roof tanks; 4) increasing the efficiency of emission control systems; 5) more stringent seal gap allowances; and 6) conducting monitoring, maintenance, recordkeeping, and reporting activities. PAR 463 will affect 429 facilities including refineries, bulk storage, loading, and oil production facilities, and is estimated to reduce VOC emissions by ~~0.43~~1.65 ton per day. Implementation of PAR 463 is expected to require physical modifications that could create secondary adverse environmental impacts relating to the installation of domes on EFR tanks and additional secondary seals on IFR tanks. The Final ~~Draft~~ EA did not identify any environmental topic areas that would be significantly adversely affected by PAR 463. Facilities with storage tanks subject to PAR 463 may be identified on lists compiled by the California Department of Toxic Substances Control per Government Code Section 65962.5 but the implementation of PAR 463 will not alter the status of the facilities on the lists.

The following is a detailed summary of the key elements contained in PAR 463. Appendix A of this EA contains draft rule language; actual text from PAR 463 is italicized while the explanation and clarification of each provision is in a non-italicized font.

Proposed Amended Rule 463

PAR 463 will contain the following subdivisions:

a) Purpose
b) Applicability
c) Definitions
d) Tank Roof Requirements
e) Other Performance Requirements
f) Monitoring Requirements
g) Reporting and Recordkeeping Requirements
h) Exemptions
i) Test Methods

j) Ozone Contingency Measures

Subdivision (a) ─ Purpose
The purpose of this rule is to reduce VOC emissions from above ground storage tanks storing organic liquids. Furthermore, PAR 463 contains a new purpose to establish contingency measures for ozone standards.

Subdivision (b) ─ Applicability

The applicability was separated from the purpose to reflect the current South Coast AQMD preferred rule format. There have been no other changes to the applicability.

Subdivision (c) ─ Definitions
Definitions were added or modified for clarity of new requirements. Key definition changes are referenced and discussed below.

- ~~*CLEANING is the process of washing or rinsing a stationary Tank, reservoir, pipelines, or other container or removing vapor, sludge, or rinsing liquid from a stationary Tank, reservoir, or other container.*~~

~~This is a new definition that uses existing rule language from South Coast AQMD Rule 1149 to clarify the meaning of cleaning within the rule language as well as consistency across South Coast AQMD rules.~~

COMPONENT is any valve, fitting, pump, compressor, pressure relief device, diaphragm, hatch, sight-glass, Roof Opening, Rim Seal System, pressure vacuum vents, guidepoles, roof legs, or meter in VOC service.

This is a definition from Rule 1173 ─ Control of Volatile Organic Compound Leaks and Releases from Components at Petroleum Facilities and Chemical Plants (Rule 1173) that was modified to include additional tank specific parts. The definition adds clarity on the meaning of component for the proposed semi-annual OGI component inspection requirement.

- *COMPONENT INSPECTION is monitoring for Visible Vapors with a handheld Optical Gas Imaging Device of a Storage Tank roof and individual components, including but not limited to Roof Openings and Rim Seal Systems, viewable from the Tank platform or a vantage point capable of seeing the Tank roof, and ground for components not viewable from the Tank platform or vantage point but viewable at ground level.*

This is a definition from Rule 1178 that was modified to include component inspection procedures for tanks that do not have access to a tank platform. In the event there is no platform from which a component inspection can be conducted, an owner or operator can use a vantage point capable of viewing the roof of the tank and/or other vantage points needed to complete the OGI inspection.

- *PRODUCT CHANGE is the process of changing the Tank contents from one ~~product~~ Organic Liquid to another ~~product~~ Organic Liquid that has different characteristics i.e. vapor pressure, viscosity, etc.*

This is a new definition to clarify the new rule language added in PAR 463 paragraph (e)(2) in response to stakeholder request.

- *VISIBLE VAPORS are any VOC vapors detected with an Optical Gas Imaging Device, when operated and maintained in accordance with manufacturer training or certification, or equivalent California Air Resources Board (CARB) training, user manuals, specifications, and recommendations.*

This is a definition from Rule 1178 that was modified to include the CARB OGI camera training as an approved training method for OGI camera operators. The definition was also modified to remove the reference to tank farm inspections and component inspections so that visible vapors can be identified outside of those two operations.

The following definitions were added or modified to be consistent with the definitions in South Coast AQMD Rule 1178:

- *ACCESS HATCH*
- *CERTIFIED PERSON*
- *CLEANING*
- ~~*COMPONENT INSPECTION*~~
- *DOMED ROOF*
- *EMISSION INVENTORY YEAR*
- *EXTERNAL FLOATING ROOF TANK*
- *FACILITY*
- *FIXED ROOF SUPPORT COLUMN AND WELL*
- *FIXED ROOF TANK*
- *FLEXIBLE ENCLOSURE SYSTEM*
- *FUEL GAS SYSTEM*
- *GAUGE FLOAT*
- *GAUGE HATCH/SAMPLE PORT*
- *GUIDEPOLE*
- *INTERNAL FLOATING ROOF TANK*
- *LADDER AND WELL*
- *LIQUID MOUNTED PRIMARY SEAL*
- *MECHANICAL SHOE PRIMARY SEAL*
- *OPTICAL GAS IMAGING DEVICE*
- *POLE FLOAT*
- *POLE SLEEVE*
- *POLE WIPER*
- *PRIMARY SEAL*
- *RESILIENT FILLED PRIMARY SEAL*
- *RIM MOUNTED SECONDARY SEAL*
- *RIM SEAL SYSTEM*

- *RIM VENT*
- *ROOF DRAIN*
- *ROOF LEG*
- *ROOF OPENING*
- *SECONDARY SEAL*
- *SLOTTED GUIDEPOLE*
- *STORAGE TANK or TANK*
- *TANK FARM INSPECTION*
- *TRUE VAPOR PRESSURE*
- *VACUUM BREAKER*
- *VISIBLE GAP*
- ~~*VISIBLE VAPORS*~~
- *WASTE STREAM TANK*

Subdivision (d) ─ Tank Roof Requirements

PAR 463 includes revisions to existing requirements and new requirements. PAR 463 establishes requirements for rim seal gaps, secondary seals, emission control systems, doming, testing, implementation and monitoring.

Primary and Secondary Seal Gap Requirements – Clause (d)(1)(A)(v)

New seal gap requirements for primary and secondary seals were added by reference to reflect seal gap requirements contained in U.S. EPA's 40 CFR 60 Subpart Kb. The new seal gap requirements are in addition to the existing seal gap requirements specified in clauses (d)(1)(A)(i) to (d)(1)(A)(iv). Seal gap requirements are contained under requirements for external floating roofs but apply to all floating roof tanks; requirements for other floating roof tanks refer to subparagraph (d)(1)(A).

Vapor Tight Requirements for Openings – Subparagraph (d)(1)(D)

New language was added to clarify that covers and openings must be controlled in a manner that is vapor tight. Vapor tight is a defined term in Rule 463. Domed external floating roof tanks also have requirements to be in a vapor tight condition, as subparagraph (d)(4)(A) refers to paragraph (d)(1).

Maintain Tanks Free of Visible Vapors for External Floating Roof Tanks – Subparagraph (d)(1)(G) (d)(2)(C), (d)(3)(D), and (d)(4)(C)

The proposed amended rule requires tanks to be free of visible vapors that could result from a defect determined by an optical gas imaging inspection conducted pursuant to the requirements of subparagraph (f)(3)(D). Defects can be anything that leads to uncontrolled emissions such as a physical malfunction, ~~or~~ a hatch improperly closed, or components not operating as intended. For example, visible vapors resulting from a pressure vacuum relief valve (PVRV) opening to relieve pressure build up is allowable. However, if that same PVRV does not re-seal properly after being opened then that is considered a defect. Requirements to maintain tanks free of visible vapors are contained under requirements for external floating roofs but applies to all tanks; requirements for other tanks refer to subparagraph (d)(1)(G).

Visible Vapor Cause Determination – Clause (d)(1)(G)(i)

If an OGI camera detects visible vapors and an owner or operator claims the vapors are not the result of a defect, then the owner or operator must demonstrate that the vapors in question are not the result of a defect. This provision is intended to put the onus on the owner or operator to prove their claim that visible vapors detected by an OGI camera is allowable by Rule 463 (e.g., PVRV opening to temporarily relieve pressure build up). Requirements for the owner or operator to demonstrate that visible vapors are not the result of a defect are contained under requirements for external floating roof tanks but applies to all tanks; requirements for other tanks refer to subparagraph (d)(1)(G), which includes clause (d)(1)(G)(i).

Doming Requirements – Subparagraph (d)(1)(H)

PAR 463 requires that facilities install a dome on any external floating roof tank storing organic liquid with a true vapor pressure of 3 psia or greater. The new provision reflects existing doming requirements in Rule 1178. External floating roof tanks that meet the requirements of subparagraph (d)(1)(H) must install domes at the next internal API 653 inspection or the next time a tank is cleaned and degassed, whichever is sooner, but not to exceed 23 years after a test verifies that an organic liquid stored has a TVP of 3 psia or greater. Internal API 653 inspections require the tank to be taken out of service to inspect the inside of the tank and are carried out every 20 years. Tanks need to be cleaned and degassed prior to the installation of a dome for safety concerns. Furthermore, doming is not cost-effective when cleaning and degassing costs are considered. The implementation timeframe for doming begins three years after [Date of Adoption] to account for planning and budgetary needs and the permitting process. It is the responsibility of the owner or operator to submit permit applications in a timely manner to ensure that permits can be issued prior to the implementation schedule specified in subparagraph (d)(1)(H). The backstop of 23 years for installing domes was calculated by adding the three year on-ramp period to the standard 20-year interval for internal API 653 inspections The effective date of this provision is June 7, 2027~~, to allow for planning and budgetary considerations~~.

True Vapor Pressure Measurements – Subparagraph (d)(1)(I)

Facilities are required to measure and record the true vapor pressure of the organic liquid inside any external floating roof tank not equipped with a dome with an initial vapor pressure test. Any tanks storing organic liquids with a TVP less than 3.0 psia are required to conduct subsequent test on a semi-annual basis (once every six months) to verify the true vapor pressure remains less than 3 psia. This requirement is effective on January 1, 2025, and the first test must be conducted by July 1, 2025. If an EFR tank shows a single test indicating the stored organic liquid has a TVP of ≥ 3.0 psia a dome must be installed pursuant to the implementation schedule in subparagraph (d)(1)(H) unless the tank is placed out of service and the permit is surrendered or if the owner or operator elected to conduct TVP tests according to the alternative schedule specified in clauses (d)(1)(I)(i). An EFR tank with permit conditions that limit the true vapor pressure of the organic liquid stored to < 3.0 psia is not exempt from the doming requirements, if the result from a test specified in subparagraph (d)(1)(I) or the average result from tests specified in clause (d)(1)(I)(i) is ≥ 3.0 psia, with the exception of EFR tanks storing waste water where the installation domes can lead to unsafe conditions pursuant to subparagraph (d)(1)(J). However, owners or operators of EFR tanks that are pursuing the alternative compliance pathway in subparagraph (d)(1)(J) may be subject to penalties and/or additional actions if TVP tests indicate that the product stored is ≥ 3.0 psia.

Alternative True Vapor Pressure Measurements – Clauses (d)(1)(I)(i)
An owner or operator can choose to conduct monthly TVP tests and submit an average TVP of the organic liquid stored in a tank every six months. If an owner or operator opts to use this alternative pathway, the owner or operator must commence testing in January 2025. Any owner or operator that fails to test monthly as of January 2025 must comply with the semi-annual TVP test requirements specified in subparagraph (d)(1)(I). If an EFR tank subject to the alternative TVP testing schedule has an average TVP over six months that is ≥ 3.0 psia, a dome must be installed pursuant to the implementation schedule in subparagraph (d)(1)(H) unless the tank is placed out of service and the permit is surrendered. The average test results are not to be calculated on a rolling average. Each calculated six month average will include the TVP test results from tests conducted from January-to-June and July-to-December each year.

Doming Alternative for Tanks with Pyrophoric Material – Subparagraph (d)(1)(J)
~~Facilities are required to accept permit conditions that limit the TVP of the product stored to less than 3.0 psia for tanks that meet the doming requirements in subparagraph (d)(1)(H), but the installation of a dome could lead to the buildup of pyrophoric materials.~~
For wastewater EFR tanks where the installation of a dome could lead to the buildup of pyrophoric materials, PAR 463 includes an option to accept permit conditions to limit the TVP of the organic liquid stored to less than 3 psia as an alternative to doming.

Removal of Alternative Compliance Pathway for Fixed Roof Tanks with an Internal Floating Type Cover from Paragraph (d)(2)
An alternative compliance pathway which allowed fixed roof tanks with an existing internal floating type of cover approved on or before June 1, 1984, to comply with requirements applicable at the time of approval was removed from subparagraph (d)(2)~~(A)~~. All fixed roof tanks with internal floating type covers will be required to comply with the provisions in PAR 463.

~~Secondary Seals~~ Seal Requirements for Internal Floating Roof Tanks – Subparagraph (d)(2)(A)
Internal floating roof tanks must be equipped with both a primary and secondary seal. Primary seal and secondary seal are defined terms in PAR 463. In response to a comment from a stakeholder, the mechanical shoe primary seal requirements for IFR tanks were updated to require that the shoe extend 6 inches above the liquid surface and the other end extend into the liquid a minimum of 4 inches. The proposed PAR 463 requirements align with Rule 1178 and are consistent with the API 650.H.4.4.5.c requirements. Rule 463 subparagraph (d)(1)(A) requires that mechanical shoe primary seals extend a minimum vertical distance of 24 inches above the surface of the organic liquid. Since the internal floating roofs are much lighter structures and are not subject to the effects of wind, larger mechanical shoe primary seals are not required for seal control effectiveness. Furthermore, maintaining the current requirement of larger mechanical shoe primary seals for all internal floating roof tanks could cause some roof systems to fail and could result in an adverse emission impact. During the 2006 Rule 1178 amendment process staff determined, based on information provided by seal manufacturers, that there is no difference in emissions as long as the mechanical shoe length meets the API Guidelines and the structural integrity of the roof is maintained.

~~Internal Floating Roof Tank Vapor Tight Requirements for Openings – Subparagraph (d)(2)(A)~~
~~The proposed amended rule clarifies that covers and openings must be controlled in a manner that is vapor tight. Vapor tight is a defined term in Rule 463.~~

~~Maintain Tanks Free of Visible Vapors for Internal Floating Roof Tanks – Subparagraph (d)(2)(C)~~
~~A provision is included that requires that tanks be free of visible vapors that could result from a defect determined by an optical gas imaging inspection conducted pursuant to the requirements of subparagraph (f)(3)(D). Defects can be anything that leads to uncontrolled emissions such as a physical malfunction or a hatch improperly closed.~~

Compliance Schedule to Install Secondary Seals on Internal Floating Roof Tanks – Subparagraph (d)(2)(D)
Any internal floating roof tanks not equipped with a secondary seal are required to have a secondary seal installed at the time of the next internal API 653 inspection or the next time the tank is cleaned and degassed, whichever is sooner, but no later than 22 years past the date of adoption for PAR 463. Internal API 653 inspections require the tank to be taken out of service to inspect the inside of the tank and are carried out every 20 years. Tanks need to be cleaned and degassed prior to the installation of secondary seals due to safety concerns. The implementation timeframe for installing secondary seals begins two years after [Date of Adoption] to account for planning and budgetary needs as well as the permitting process. It is the responsibility of the owner or operator to submit permit applications in a timely manner to ensure that permits can be issued prior to the implementation schedule specified in subparagraph (d)(2)(D). ~~the next time the tank is emptied and degassed, but no later than ten years past the date of adoption for PAR 463.~~

~~Fixed Roof Tank Vapor Tight Requirements for Openings – Subparagraph (d)(3)(A)~~
~~New language was added to clarify that covers and openings must be controlled in a manner that is vapor tight. Vapor tight is a defined term in PAR 463.~~

Emission Control Systems for Fixed Roof Tanks – Subparagraph (d)(3)(C)
Emission control systems required on fixed roof tanks must achieve 98% control efficiency by weight. The owner or operator is required to submit early Title V permit revisions pursuant to South Coast AQMD Rule 3005.

~~Maintain Tanks Free of Visible Vapors for Fixed Roof Tanks – Subparagraph (d)(3)(D)~~
~~New language was added that requires that tanks be free of visible vapors that could result from a defect determined by an optical gas imaging inspection conducted pursuant to the requirements of subparagraph (f)(3)(D). Defects can be anything that leads to uncontrolled emissions such as a physical malfunction or a hatch improperly closed.~~

Domed External Floating Roofs – Paragraph (d)(4)
Staff added a new paragraph to specify requirements for domed external floating roofs.

Roof Openings and Rim Seal Systems for Domed External Floating Roofs – Subparagraph (d)(4)(A)
Domed external floating roofs are subject to the same requirements as external floating roofs to equip and maintain roof openings and rim seal systems, with the exception of

slotted guidepoles. Specific requirements for the components needed for slotted guidepoles are specified in subparagraph (d)(4)(A).

Concentration of Organic Vapor for Domed External Floating Roofs – Subparagraph (d)(4)(B)
Subparagraph (d)(4)(B) is based on the requirements in subparagraph (d)(2)(B) to ensure that the concentration of organic vapor in the vapor space above the floating roof does not exceed 30 percent of its lower explosive limit.

~~Maintain Tanks Free of Visible Vapors for Domed External Floating Roofs – Subparagraph (d)(4)(C)~~
~~Subparagraph (d)(4)(C) requires that tanks be free of visible vapors that could result from a defect determined by an optical gas imaging inspection conducted pursuant to the requirements of paragraph (f)(3)(D). Defects can be anything that leads to uncontrolled emissions such as a physical malfunction or a hatch improperly closed.~~

Condition Requirements for Domed Roof – Subparagraph (d)(4)(D)
Subparagraph (d)(4)(D) mirrors Rule 1178 and specifies that domes must be maintained in a condition that is free from openings that are not part of the dome design such as gaps, cracks, separations and other openings. This requirement excludes openings that are part of the dome design such as vents and access points or doors.

Subdivision (e) ─ Other Performance Requirements

Exceptions for Floating Roof During Product Change – Paragraph (e)(2)
The proposed amended rule includes product change as an activity in which an internal floating roof or external floating roof does not need to float on the organic liquid. Product change is a defined term in PAR 463. Staff updated the rule language in response to a stakeholder request. The proposed amended rule language clarifies the intent of existing rule language as tanks must be emptied during a product change, which requires floating roofs to rest on support legs (unless the roof is cable suspended).

Executive Officer Approval of Alternative Seals – Paragraph (e)(5)
Seals that are not on the current list of approved seals cannot be used unless a facility is given written approval by the Executive Officer.

Use of PAR 463 Addendum for Vapor Pressure Limits – Paragraph (e)(6)
Organic liquids listed on the Rule 463 addendum can no longer be deemed to be in compliance. The addendum can be used as a guide for compliance with the appropriate vapor pressure limits.

Subdivision (f) ─ Monitoring Requirements

Tank Roof Refloating Seal Inspections ─ Subparagraph (f)(3)(B)
~~The proposed amended rule~~ PAR 463 extends the time to conduct required seal inspections on floating roofs to 48 hours after a tank roof is refloated. A stakeholder stated that tank refilling at their facility can take up to 48 hours to complete. Under the current rule requirements, facilities are required to conduct seal inspections within 24 hours. Therefore, facilities with tank refilling operations longer than 24 hours are required to conduct seal

inspections before the tank refilling is complete; once the seal inspection is completed the facility resumes tank refilling operations. The pause in operations can lead to unintended excess auxiliary emissions. For example, if a vessel is used to refill a large tank that takes more than 24 hours to complete, the process must pause for the inspection to occur and then continue. During this pause the vessel is on standby, generating emissions. The extended seal inspection deadline accounts for longer refill operations while maintaining a deadline for seal inspections.

Electronic Notifications – Subparagraph (f)(3)(C)
The proposed amended rule specifies electronic notifications to the email address designated by the Executive Officer. The timeframe to submit notifications was also shortened to 2 days prior to the start of any tank-emptying or roof-refloating operation for planned maintenance. Electronic notifications are almost instantaneous which reduces the need for a longer notification timeframe.

Optical Gas Imaging Inspections – Subparagraph (f)(3)(D)
Effective July 1, 2025, optical gas imaging inspections are required for tanks that meet the capacity and vapor pressure requirements specified in subdivision (d) and paragraph (e)(1) to determine compliance with the requirement for tanks to be maintained in a condition that is free of visible vapors resulting from a defect or malfunction of equipment. This subparagraph contains the requirements for OGI inspections.

Certification/Training of Person Conducting OGI Inspection – Clause (f)(3)(D)(i)
Contains requirements for qualification for the persons conducting an OGI inspection. Persons conducting the OGI inspection must be certified or have undergone training for the camera used provided by the manufacturer of the OGI camera or the equivalent CARB training. The persons conducting the inspections must also complete all subsequent training or certification recommended by the OGI manufacturer. This paragraph also contains requirements for proper operation and maintenance of the OGI device. The OGI camera must be operated and maintained in accordance with all manufacturer guidance including but not limited to that stated in any training or certification course, user manuals, specifications, recommendations.

Tank Farm Inspection Requirements – Clause (f)(3)(D)(ii)
Contains requirements for tank farm inspections.

Frequency (Tank Farm Inspection) – Subclause (f)(3)(D)(ii)(A)
Inspections must be conducted at least once every two calendar weeks.

Procedure (Tank Farm Inspection) – Subclause (f)(3)(D)(ii)(B)
A person using an OGI devicen ~~inspector~~ is required to monitor for visible vapors with a tank farm inspection, as defined in PAR 463. If visible vapors are detected during a tank farm inspection, a~~n inspector~~ person must conduct an additional inspection from the tank's platform, or a vantage point for tanks without a platform, to make an effort to determine the source of emissions. From the platform or vintage point, a~~n inspector~~ person will use an OGI device to inspect components required to be maintained in a vapor tight condition or with no visible gaps~~, viewable from the tank platform~~. If visible vapors are detected from any components that are required to be maintained in a vapor tight condition or in a condition with no visible gaps, the facility must demonstrate compliance with applicable

rule requirements for any component from which visible vapors are emitted or make a repair, within three days of identifying the visible vapors. If visible vapors are detected from the roof or other components not required to be vapor tight or with no visible gaps, the ~~inspector~~ person must conduct a visual inspection to identify any defects in equipment from which visible vapors are emitted. Defects may include, but are not limited to, equipment that is not operating as intended, equipment not found in good operating condition, equipment not meeting all the requirements of Rule 463~~the rule~~, or other indicators that equipment has failed (e.g., organic liquid pooled on a floating roof). The visual inspection for defects may include the use of an OGI device. If no defects are identified, no further action is required for the inspection. If a defect is identified, a repair must be made within three days.

Component Inspections – Clause (f)(3)(D)(iii)
Contains requirements for component inspections. Component inspection~~s~~ is a defined term in PAR 463.~~include monitoring of individual components including, but not limited to rim seals, pressure-vacuum vents, hatches, guidepoles, roof legs, emission control system connections and vents.~~

Frequency (Component Inspection) – Subclause (f)(3)(D)(iii)(A)
Inspections must be conducted at least twice per year at 4 to 8 month ~~intervals~~~~once every six months~~ for floating roof tanks. The component inspection frequency mirrors the timeframe specified in Rule 463 for other required semi-annual inspections, so that component inspections may be conducted at the same time. ~~Component inspections may be conducted during other required semi-annual inspections.~~

Procedure (Component Inspection) – Subclauses (f)(3)(D)(iii)(B)-(C)
Repairs or demonstration with applicable rule requirements must be conducted when visible vapors are detected from any component or equipment, except for rim seal systems. Repairs or demonstrations with rim seal requirements must be conducted when a defect is visible from the tank platform, or a vantage point for tanks without a platform, and when visible vapors are emitted from the rim seal and are also detectable at the top of the tank shell or from roof vent.

Alternative Monitoring Method – Subparagraph (f)(3)(E)
An owner or operator my elect to use an alternative monitoring method approved in writing by the U.S. EPA that is equivalent or more stringent than the OGI inspection requirements specified in PAR 463. Alternative monitoring methods submitted to U.S. EPA for approval, but that have not received written approval from U.S. EPA, do not qualify as an approved alternative method in lieu of required OGI inspections. An owner or operator is required to submit written documentation of the U.S. EPA approved method to the South Coast AQMD, so staff can verify that the method is approved by U.S. EPA prior to the alternative monitoring method being implemented. Until the approved monitoring method is approved by South Coast AQMD, an owner or operator is subject to the OGI inspection requirements in PAR 463.

Performance Tests for Vapor Recovery Systems – Paragraph (f)(5)
An owner or operator of an existing vapor recovery system must conduct an initial performance test to verify compliance with the new control efficiency within one year of the date of adoption of PAR 463. Additional performance tests must be conducted for all

vapor recovery systems at a frequency of least once every ten years. If a vapor recovery system is changed in any way that affects the capture or control efficiency, a performance test must be conducted within 180 days of the equipment modification. For example, changing the temperature in which a combustion based vapor recovery unit achieves ignition may lead to a change in the achieved control efficiency. Under the described scenario, a performance test would need to be conducted within 180 days of the vapor recovery system modification to verify compliance with the control efficiency requirements. Fuel gas systems operating to comply with the requirements in subparagraph (d)(3)(C) are not required to conduct performance tests.

Subdivision (g) ─ Reporting and Recordkeeping Requirements

Electronic Compliance Inspection Report Option – Subparagraph (g)(1)(A)
Paragraph (g)(A) was updated to allow for an electronic compliance inspection report, provided that all information required in Attachment B is included.

Electronic Option for Non-Compliance Report – Subparagraph (g)(1)(C)
Paragraph (g)(C) was updated to specify that a non-compliance report is required to be submitted electronically to the email address designated by the Executive Officer.

Emissions Reporting – Subparagraph (g)(2)(A)
U.S. EPA TANKS 4.0 was removed as an option to base emission information parameters on for South Coast AQMD's Annual Emission Reporting Program. U.S. EPA TANKS 4.0 was developed using a software that is now outdated and is not reliably functional. U.S. EPA currently recommends the use of formulas found in AP-42: Compilation of Air Pollutant Emissions Factors from Stationary Sources (AP-42), Chapter 7 to estimate VOC emissions from storage tanks. Currently the U.S. EPA is developing Tanks 5.0 as a replacement for the outdated Tanks 4.0. Pending U.S. EPA approval, Tanks 5.0 would be an acceptable tool to calculate emissions, for as long as U.S. EPA deems Tanks 5.0 to be an appropriate tool to estimate VOC emissions.

Reporting and Recordkeeping Requirements for OGI Inspections – Paragraph (g)(4)
Contains notification and recordkeeping requirements for OGI inspections.

Reporting for OGI Inspections – Subparagraph (g)(4)(A)
Contains reporting requirements for tank farm inspections. Facilities must report to 1-800-CUTSMOG when visible vapors are detected during a tank farm inspection that require a demonstration with rule requirements or a repair pursuant to the requirements of subclause (f)(3)(D)(ii)(B) within 24 hours of identifying the visible vapors.

Records for Tank Farm Inspections – Subparagraph (g)(4)(B)
Contains recordkeeping requirements for tank farm inspections. Written and digital records must be kept for findings of visible vapors resulting from a defect in equipment or from components required to be vapor tight or with no visible gap.

Records for Component Inspections – Subparagraph (g)(4)(C)
Contains recordkeeping requirements for component inspections.

Recordkeeping and Reporting TVP Test Results – Paragraphs (g)(5) and (g)(6)
Contains recordkeeping and reporting requirements for the TVP tests required for EFR tanks. Test results must be kept for 20 years to confirm tanks are under the doming TVP thresholds. Any test that indicates a TVP of 3.0 psia or greater must be reported to the South Coast AQMD and contain the year of the next internal API 653 inspection and the next planned time a tank is to be cleaned and degassed to aid in determining compliance with the dome installation schedule. ~~to aid in determining compliance with the dome installation schedule.~~

Reporting for VRU Performance Tests – Paragraphs (g)(7)
Contains reporting requirements for VRU performance tests. Facilities must submit reports of any performance tests within 60 days of conducting the test.

Subdivision (h) ─ Exemptions

Exemption for Tanks Regulated by Rule 1178 – Paragraph (h)(3)
An exemption from the provisions of Rule 463 for tanks regulated by Rule 1178, with the exception of other performance requirements, ~~and~~ seal categories, and the definition for Product Change, was added to PAR 463. The new exemption increases clarity of compliance requirements for affected facilities subject to Rules 463 and 1178.

Exemption from OGI Inspections – Paragraph (h)(4)
Any tank that is out of service and complying with the requirements of Rule 1149 is exempt from OGI inspections. OGI inspections must resume once the tank is refilled and the initial inspection must be carried out within 14 days of the date the tank is filled.

Exemption from OGI Inspections Due to Safety– Paragraph (h)(5)
If a facility or person responsible for conducting an OGI inspection at a facility determines that it is unsafe to climb a tank due to safety concerns such as wind or slippery surfaces from rain, the facility is not required to conduct an inspection from the tank platform, or other vantage point for tanks without a platform. A ~~platform~~ component inspection for tanks that were identified as having visible vapors during a tank farm inspection must be conducted the first day the facility or person responsible for conducting the OGI inspection determines it safe to do so. An owner or operator is required to document the date that a required inspection was not completed and the reason.

Subdivision (i) ─ Test Methods

Additional Vapor Pressure Test Methods – Paragraph (i)(3)
Contains the approved test methods to verify compliance with the Rule 463 requirements. New test methods were added to expand the test options used to determine the Reid Vapor Pressure of organic liquids. The new test methods include ASTM – 6377 and ASTM –6378 which provide updated testing procedures for crude oils and heavier petroleum products, respectively. Additional changes include the removal of references to specific editions of U.S. EPA AP-42 and updates to include the verification of the new vapor tight requirements.

Removal of Reference to AP-42 Fifth Edition – Paragraph (i)(5)
A reference to the fifth edition of U.S. EPA AP-42 was removed, as future versions of AP-42 may be published. Removing the reference to the specific edition will reduce the need for future Rule 463 amendments.

Verification of Vapor Tight – Paragraph (i)(6)
Contains the methods used to determine the vapor tight condition for storage tanks.

Subdivision (j) ─ Ozone Contingency Measure
The proposed amendments add the required ozone contingency measures to the rule. These contingency measures would only be implemented in the event that the U.S. EPA determines that the South Coast AQMD had failed to meet an RFP milestone or to attain an ozone NAAQS. These contingency control measures are necessary as part of comprehensive efforts to timely attain ozone standards.

CHAPTER 2

ENVIRONMENTAL CHECKLIST

INTRODUCTION

The environmental checklist provides a standard evaluation tool to identify a project's potential adverse environmental impacts. This checklist identifies and evaluates potential adverse environmental impacts that may be created by the proposed project.

GENERAL INFORMATION

Project Title:	PAR 463 – Organic Liquid Storage
Lead Agency Name:	South Coast Air Quality Management District
Lead Agency Address:	21865 Copley Drive Diamond Bar, CA 91765
CEQA Contact Person:	Jivar Afshar, (909) 396-2040, jafshar@aqmd.gov
PAR 463 Contact Person:	Joshua Ewell, (909) 396-2212, jewell@aqmd.gov
Project Sponsor's Name:	South Coast Air Quality Management District
Project Sponsor's Address:	21865 Copley Drive Diamond Bar, CA 91765
General Plan Designation:	Not applicable
Zoning:	Not applicable
Description of Project:	Rule 463 limits VOC emissions from any stationary storage tank with a potential for VOC emissions of six tons per year or greater used in crude oil and natural gas production operations, above-ground stationary tanks with a capacity of 19,815 gallons or greater used to store organic liquids, and above-ground tanks with a capacity between 251 and 19,815 gallons used to store gasoline. PAR 463 establishes requirements for: 1) conducting inspections, including but not limited to optical gas imaging tank farm inspections every other calendar week; 2) installing domes on external floating roof tanks storing organic liquids with a true vapor pressure of 3.0 psia or greater; 3) installing secondary seals on all floating roof tanks; 4) increasing the efficiency of emission control systems; 5) more stringent seal gap allowances; and 6) conducting monitoring, maintenance, recordkeeping, and reporting activities. PAR 463 will affect 429 facilities including refineries, bulk storage, loading, and oil production facilities, and is estimated to reduce VOC emissions by ~~0.43~~1.65 ton per day.
Surrounding Land Uses and Setting:	Various
Other Public Agencies Whose Approval is Required:	Not applicable

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The following environmental impact areas have been assessed to determine their potential to be affected by the proposed project. As indicated by the checklist on the following pages, environmental topics marked with an "✓"involve at least one impact that is a "Potentially Significant Impact". An explanation relative to the determination of impacts can be found following the checklist for each area.

☐ Aesthetics	☐ Geology and Soils	☐ Population and Housing
☐ Agriculture and Forestry Resources	☐ Hazards and Hazardous Materials	☐ Public Services
☐ Air Quality and Greenhouse Gas Emissions	☐ Hydrology and Water Quality	☐ Recreation
☐ Biological Resources	☐ Land Use and Planning	☐ Solid and Hazardous Waste
☐ Cultural and Tribal Cultural Resources	☐ Mineral Resources	☐ Transportation
☐ Energy	☐ Noise	☐ Wildfire
☐ Mandatory Findings of Significance		

DETERMINATION

On the basis of this initial evaluation:

☑ I find the proposed project, in accordance with those findings made pursuant to CEQA Guidelines Section 15252, COULD NOT have a significant effect on the environment, and that an ENVIRONMENTAL ASSESSMENT with no significant impacts has been prepared.

☐ I find that although the proposed project could have a significant effect on the environment, there will NOT be significant effects in this case because revisions in the project have been made by or agreed to by the project proponent. An ENVIRONMENTAL ASSESSMENT with no significant impacts will be prepared.

☐ I find that the proposed project MAY have a significant effect(s) on the environment, and an ENVIRONMENTAL ASSESSMENT will be prepared.

☐ I find that the proposed project MAY have a "potentially significant impact" on the environment, but at least one effect: 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards; and, 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL ASSESSMENT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects: 1) have been analyzed adequately in an earlier ENVIRONMENTAL ASSESSMENT pursuant to applicable standards; and, 2) have been avoided or mitigated pursuant to that earlier ENVIRONMENTAL ASSESSMENT, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Date: March 26, 2024 **Signature:** 

Kevin Ni
Program Supervisor, CEQA
Planning, Rule Development and Implementation

ENVIRONMENTAL CHECKLIST AND DISCUSSION

As explained in Chapter 1, PAR 463 limits VOC emissions from above-ground stationary tanks with a capacity of 19,815 gallons or greater used to store organic liquids, above-ground tanks with a capacity between 251 and 19,815 gallons used to store gasoline, and any stationary storage tank with a potential for VOC emissions of six tons per year or greater used in crude oil and natural gas production operations. PAR 463 establishes requirements for: 1) conducting inspections, including but not limited to optical gas imaging tank farm inspections every other calendar week; 2) installing domes on EFR tanks storing organic liquids with a true vapor pressure of 3.0 psia or greater; 3) installing secondary seals on all floating roof tanks; 4) increasing the efficiency of emission control systems; 5) more stringent seal gap allowances; and 6) conducting monitoring, maintenance, recordkeeping, and reporting activities.

Of the proposed changes in PAR 463, only the installation of domes on some EFR tanks and the installation of secondary roof seals on some IFR tanks are expected to require physical modifications involving construction and these activities could create secondary adverse environmental impacts. Construction from doming EFR tanks involves assembling the dome, lifting it, and installing the dome; while installing secondary roof seals on IFR tanks is a one-step process. These activities create the potential for secondary adverse environmental impacts due to construction.

PAR 463 provides long time frames for when domes are required to be installed on applicable storage tanks in accordance with subparagraph (d)(1)(H), as follows: all applicable storage tanks at the time of the next internal API 653 inspection or the next time the tank is ~~emptied~~ cleaned and degassed, but no later than 23 years after a true vapor pressure test indicates the organic liquid stored is ≥ 3.0 psia. The effective date of this provision is June 7, 2027, to allow time for planning and budgetary considerations. In addition, construction activities associated with installing domes are expected to occur concurrently in situations when requirements other than PAR 463 necessitate ~~emptying~~ cleaning and degassing the tank. For example, PAR 463 subparagraph (d)(2)(D) specifies that the timing of construction should be coordinated and coincide with when the storage tank is next ~~emptied~~ cleaned and degassed when installing secondary roof seals on IFR tanks. For these reasons, storage tank ~~emptying~~ cleaning and degassing activities are not considered unique to PAR 463 and as such, the environmental impacts from these activities are excluded from the analysis. In addition, no grading or site preparation activities are required for installing domes. Thus, this construction analysis focuses on impacts from the combined efforts associated with: 1) doming EFR tanks which involves assembling the dome, lifting it, and installing the dome; and 2) installing secondary roof seals on IFR tanks as a one-step process.

Once the domes and secondary roof seals are installed, no changes in process operations involving these storage tanks are expected to occur. Therefore, other than VOC emission reductions, which are an environmental benefit to air quality, no adverse operational impacts are expected.

Other components of PAR 463, such as requirements for conducting biweekly optical gas imaging tank farm inspections every other calendar week, ~~semi-annual~~ component inspections twice per year at four- to eight-month intervals and implementing recordkeeping and reporting provisions would not be expected to cause any physical changes that would create any secondary adverse environmental impacts either during construction or operation.

For these reasons, the analysis in this EA focuses on the key elements in the proposed project with the potential to create secondary adverse environmental impacts associated with doming approximately 20 EFR tanks and installing secondary seals on 22 IFR tanks.

		Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
I.	**AESTHETICS.** Would the project:				
a)	Have a substantial adverse effect on a scenic vista?	☐	☐	☑	☐
b)	Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☑	☐
c)	In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point(s).) If the project is in an urbanized area, would the project conflict with applicable zoning or other regulations governing scenic quality?	☐	☐	☑	☐
d)	Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☑	☐

Significance Criteria

The proposed project impacts on aesthetics will be considered significant if:

- The project will block public views from a scenic highway or corridor.
- The project will adversely affect the visual continuity of public views of the surrounding area.
- The impacts on light and glare will be considered significant if the project adds lighting which would add glare to residential areas or sensitive receptors.

Discussion

PAR 463 applies to storage tanks located at 429 facilities including refineries, bulk storage, loading, and oil production facilities. Staff estimates 20 tanks will need to be domed and 22 tanks will need secondary roof seals installed. PAR 463 is estimated to reduce VOC emissions by ~~0.43~~ 1.65 ton per day. The components of PAR 463 that would be expected to have physical effects are installing domes on EFR tanks and secondary roof seals on IFR tanks. Other components of PAR 463, such as requirements for conducting optical gas imaging tank farm inspections every other calendar week, ~~semi-annual~~ component inspections twice per year at four- to eight-month intervals and implementing recordkeeping and reporting provisions are not expected to create any secondary adverse environmental impacts.

I. a), b), & c) Less Than Significant Impact. For the purpose of determining significance under CEQA, a scenic vista is generally considered a viewpoint that provides expansive views of a highly valued landscape for the benefit of the general public. Some scenic vistas are officially designated

by public agencies, or informally designated by tourist guides. Vistas provide visual access or panoramic views to a large geographic area and are generally located at a point where surrounding views are greater than one mile away. Panoramic views are usually associated with vantage points over a section of urban or natural areas that provide a geographic orientation not commonly available. Examples of panoramic views might include an urban skyline, valley, mountain range, a large open space area, the ocean, or other water bodies. A substantial adverse effect to a scenic vista is one that degrades the view from such a designated view spot.

A scenic highway is generally considered a stretch of public roadway that is designated as a scenic corridor by a federal, state, or local agency. Caltrans defines a scenic highway as any freeway, highway, road, or other public right of way, that traverses an area of exceptional scenic quality.

Physical modifications associated with the proposed project are limited to doming EFR tanks and installing secondary roof seals on IFR tanks at existing facilities. The construction equipment is expected to be at the height of or just above the existing storage tanks and not substantially visible to the surrounding area due to construction occurring within each existing facility's property line, existing fencing along property lines, and existing structures currently within each facility's boundaries that may buffer the views of the construction activities.

Since the affected facilities are located in existing industrial areas, the construction equipment is not expected to be substantially discernable from other off-road equipment that exists on-site for routine operations and maintenance activities. Further, the construction activities are not expected to adversely impact views and aesthetics resources since most of the construction equipment and activities are expected to occur within the confines of each existing facility and are expected to introduce only minor visual changes to areas outside each facility, if at all, depending on the location of the construction activities within each affected facility. In addition, the construction activities are expected to be temporary in nature. Once construction is completed, all construction equipment would be removed from each facility.

Since all of the affected facilities are located in urbanized areas, any changes to the buildings or structures would require approvals from the local city or county planning departments. It is important to note that the affected facilities are located throughout the South Coast AQMD jurisdiction. Counties are mandated by the state of California to prepare a general plan containing an aesthetics element. None of the anticipated physical activities associated with implementing PAR 463 are intended to interfere or be inconsistent with the local planning department aesthetics requirements in their general plans. Physical activities resulting from the proposed project are not expected to take place in nor have a substantial adverse effect on a scenic vista or scenic highway indicated in the Los Angeles County General Plan 2035[5], Orange County General Plan[6], Riverside County General Plan[7], or San Bernardino Countywide Plan[8]. None of the affected facilities are expected to be located within the views of a scenic vista or state scenic highway as designated by

[5] Los Angeles County, General Plan 2035, Chapter 9 Section VII, Updated July 14, 2022. https://planning.lacounty.gov/wp-content/uploads/2022/11/9.0_gp_final-general-plan-ch9.pdf.

[6] Orange County, General Plan, Chapter IV Scenic Highway Plan Map, Accessed on March 21, 2024. https://ocds.ocpublicworks.com/sites/ocpwocds/files/import/data/files/8588.pdf

[7] Riverside County, General Plan – December 2015, Chapter 4 Circulation Element, Figure C-8 Scenic Highways, December 2015. https://planning.rctlma.org/sites/g/files/aldnop416/files/migrated/Portals-14-genplan-general-plan-2016-elements-Ch04-Circulation-120815.pdf

[8] San Bernardino County, Countywide Plan, Policy Plan - NR-3 Scenic Routes & Highways, Created October 27, 2020. https://countywideplan.com/wp-content/uploads/sites/68/2021/02/NR-3-Scenic-Routes-Highways-201027.pdf

the California Department of Transportation (CalTrans).[9] Therefore, PAR 463 would not be expected to conflict with applicable zoning or other regulations governing scenic quality.

The existing storage tanks that will be domed range in height from 15 feet to 65 feet and diameter from 15 feet to 299 feet. For context, the size of these storage tanks can be compared to a building that is from two to seven floors or stories in height.

Domes for these existing storage tanks are typically designed with a maximum radius equal to 1.2 times the tank diameter with a minimum of 0.7 times the tank diameter; the ratio of dome height to tank diameter is about 1:6.[10] For example, the largest of the affected storage tanks that would need a dome is 63-feet in height with a diameter of 299 feet and the new dome would be one-sixth of the diameter, or 49.8 feet which is equivalent to adding about five floors or stories in a building. After doming, the total height would be approximately 113 feet.

In conclusion, the visual character of the landscape at affected facilities is already predominantly defined by the existing storage tanks themselves, and at a height that already obstructs the surrounding views, depending on the observer's location, regardless of whether the storage tanks are located at or near the coast or coastal sightlines or more inland. Further, the installation of domes is expected to blend in with the current industrial aesthetic profile of existing domed storage tanks at affected facilities.

The requirements in PAR 463 specific to conducting monitoring and inspections would involve low-profile activities, if at all, that would be expected to blend in with routine day-to-day operations occurring within the fence line of each affected facility. Therefore, monitoring and inspections would not be expected to cause any discernable aesthetic impacts visible to outside the property lines of each facility.

Based on the preceding analysis, implementation of the proposed project would have less than significant impacts on scenic vistas and would not be expected to substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway. In addition, PAR 463 would not be expected to substantially degrade the existing visual character or quality of public views of the affects sites and their surroundings. Finally, PAR 463 would not be expected to conflict with applicable zoning or other regulations governing scenic quality.

I. d) Less Than Significant Impact. PAR 463 does not include any components that would require construction activities to occur at night. Further, cities often have their own limitations and prohibitions that restrict construction from occurring during evening hours and weekends. Therefore, no additional temporary construction lighting at the facility would be expected. However, if facility operators determine that the construction schedule requires nighttime activities, temporary lighting may be required. Nonetheless, since construction activities would be completely located within the boundaries of each affected facility, additional temporary lighting is not expected to be discernable from the existing permanent night lighting.

[9] Caltrans, Officially Designated County Scenic Highways. Accessed on March 22, 2024. https://dot.ca.gov/programs/design/lap-landscape-architecture-and-community-livability/lap-liv-i-scenic-highways

[10] Maxwell Continental Tank Serv Engineering, https://maxwelltanks.com/domed-floating-roof-tank/alu-geodesic-dome-roofs/, accessed on March 22, 2024.

The existing buildings at the affected facilities are currently illuminated at night for safety and security purposes, and the lighting typically faces toward the interior of each facility's property so that they point downward or parallel to the ground, which has the effect of limiting the amount of lighting to what is needed to adequately illuminate the specific locations. While minimal, additional permanent light sources could potentially be installed at or near the installation of new domes, PAR 463 does not specifically require new lighting to be installed. Thus, any new lighting, if installed, would likely be consistent in intensity and type with the existing lighting on equipment and other structures at the existing facilities and directed to minimize potential lighting impacts on areas outside the property lines. These practices are followed to avoid or minimize potential lighting impacts on areas outside each facility's property. Since the anticipated modifications would occur within the boundaries of each facility's property, no new areas are expected to be illuminated off-site by permanent additional lighting, in the event any new lighting is installed.

While any new aluminum dome could create an initial glare initially, the dome's aluminum panels will gradually oxidize such that the initial glare will dull naturally over the course of three to 12 months, or sooner at facilities located within industrial areas or by the ocean. In addition, to more quickly alleviate or eliminate the glare, dome panels can also be painted or sandblasted to dull the finish.

As described earlier in the discussion for questions 1a), b), and c), the existing storage tanks are at a very tall height (e.g., ranging from 15 feet to 65 feet) and the installation of a dome would increase the total overall height by about 2.5 feet to 50 feet, depending on the tank diameter. As such, the installation of aluminum domes will mainly reflect up towards the sky except for certain angles and at certain times of the day as the sun moves across the sky. The degree of reflection will fade over time as the aluminum oxidizes. In any case, construction to install domes, whether painted, unpainted or sanded, on the affected storage tanks will be subject to local planning department aesthetics requirements to avoid any conflict with a city or county general plan's aesthetics element. PAR 463 does not contain requirements or restrictions relative to the surface features of the dome. Further, all facility owners have other existing storage tanks that are domed and prior experience and understanding of what the local planning departments and any other agencies that may have oversight have required previously and if any glare reduction actions may be needed on any new domes that are installed at the individual site. As such, facility owners will need to work with contractors and coordinate with the local planning agency when designing each dome to determine the appropriate course of action for how to employ glare minimization features on the domes, if needed.

For these reasons, the proposed project would not create a new source of substantial light or glare at any of the affected facilities in a manner that would significantly adversely affect day or nighttime views in the surrounding areas.

Conclusion

Based upon these considerations, less than significant adverse aesthetics impacts are expected from implementing the proposed project. Since no significant aesthetics impacts were identified, no mitigation measures are necessary or required.

		Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
II.	**AGRICULTURE AND FORESTRY RESOURCES.** Would the project:				
a)	Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland mapping and Monitoring Program of the California Resources Agency, to non- agricultural use?	☐	☐	☐	☑
b)	Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☑
c)	Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?	☐	☐	☐	☑
d)	Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☑
e)	Involve other changes in the existing environment which, due to their location or nature, could result in the conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☑

Significance Criteria

Project-related impacts on agriculture and forest resources will be considered significant if any of the following conditions are met:

- The proposed project conflicts with existing zoning or agricultural use or Williamson Act contracts.
- The proposed project will convert prime farmland, unique farmland or farmland of statewide importance as shown on the maps prepared pursuant to the farmland mapping and monitoring program of the California Resources Agency, to non-agricultural use.
- The proposed project conflicts with existing zoning for, or causes rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined in Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g)).

- The proposed project would involve changes in the existing environment, which due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use.

Discussion
PAR 463 applies to storage tanks located at 429 facilities including refineries, bulk storage, loading, and oil production facilities. Staff estimates 20 tanks will need to be domed and 22 tanks will need secondary roof seals installed. PAR 463 is estimated to reduce VOC emissions by ~~0.43~~ 1.65 ton per day. The components of PAR 463 that would be expected to have physical effects are installing domes on EFR tanks and secondary roof seals on IFR tanks. Other components of PAR 463, such as requirements for conducting optical gas imaging tank farm inspections every other calendar week, ~~semi-annual~~ component inspections twice per year at four- to eight-month intervals and implementing recordkeeping and reporting provisions are not expected to create any secondary adverse environmental impacts.

II. a), b), c), d), & e) No Impact. Pursuant to the California Land Conservation Act of 1965, a Williamson Act Contract enables private landowners to voluntarily enter into contracts with local governments for the purpose of restricting specific parcels of land to agricultural or related open space use. In return, landowners receive lower property tax assessments based upon farming and open space uses as opposed to full market value.

The affected facilities and their immediately surrounding areas are not located on or near areas zoned for agricultural use, Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Department of Conservation.[11] Therefore, the proposed project would not result in any construction of new buildings or other structures that would require converting farmland to non-agricultural use or conflict with zoning for agriculture use or a Williamson Act contract. The construction and operation activities would be expected to occur within the confines of existing industrial facilities; thus, the proposed project is not expected to result in converting farmland to non-agricultural use; conflict with existing zoning for agricultural use, or a Williamson Act Control.

All of the facilities are located in industrial use areas in the urban portion of South Coast AQMD's jurisdiction and, as such, are not near forest land. Therefore, the proposed project is not expected to conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g)) or result in the loss of forest land or conversion of forest land to non-forest use. Consequently, the proposed project would not create any significant adverse agriculture or forestry impacts.

Conclusion
Based upon these considerations, significant adverse agriculture and forestry resources impacts are not expected from implementing the proposed project. Since no significant agriculture and forestry resources impacts were identified, no mitigation measures are necessary or required.

[11] California Department of Conservation, California Important Farmland Finder, Accessed March 2024. https://maps.conservation.ca.gov/DLRP/CIFF/

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
III. AIR QUALITY AND GREENHOUSE GAS EMISSIONS. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☑
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	☐	☐	☑	☐
c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☑	☐
d) Create objectionable odors affecting a substantial number of people?	☐	☐	☑	☐
e) Diminish an existing air quality rule or future compliance requirement resulting in a significant increase in air pollutant(s)?	☐	☐	☑	☐
f) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☑	☐
g) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☑	☐

Significance Criteria

To determine whether or not air quality and greenhouse gas impacts from implementing the proposed project are significant, impacts will be evaluated and compared to the criteria in Table 2-1. The proposed project will be considered to have significant adverse impacts if any one of the thresholds in Table 2-1 are equaled or exceeded.

Table 2-1

South Coast AQMD Air Quality Significance Thresholds

Mass Daily Thresholds [a]		
Pollutant	**Construction**	**Operation**
NO_x	100 lbs/day	55 lbs/day
VOC	75 lbs/day	55 lbs/day
PM_{10}	150 lbs/day	150 lbs/day
$PM_{2.5}$	55 lbs/day	55 lbs/day
SO_x	150 lbs/day	150 lbs/day
CO	550 lbs/day	550 lbs/day
Lead	3 lbs/day	3 lbs/day
Toxic Air Contaminants (TACs), Odor, and GHG Thresholds		
TACs (including carcinogens and non-carcinogens)	Maximum Incremental Cancer Risk ≥ 10 in 1 million Cancer Burden > 0.5 excess cancer cases (in areas ≥ 1 in 1 million) Chronic & Acute Hazard Index ≥ 1.0 (project increment)	
Odor	Project creates an odor nuisance pursuant to South Coast AQMD Rule 402	
GHG	10,000 MT/yr CO_2eq for industrial facilities	
Ambient Air Quality Standards for Criteria Pollutants [b]		
NO_2 1-hour average annual arithmetic mean	South Coast AQMD is in attainment; project is significant if it causes or contributes to an exceedance of the following attainment standards: 0.18 ppm (state) 0.03 ppm (state) and 0.0534 ppm (federal)	
PM_{10} 24-hour average annual average	10.4 μg/m^3 (construction)[c] & 2.5 μg/m^3 (operation) 1.0 μg/m^3	
$PM_{2.5}$ 24-hour average	10.4 μg/m^3 (construction)[c] & 2.5 μg/m^3 (operation)	
SO_2 1-hour average 24-hour average	0.25 ppm (state) & 0.075 ppm (federal – 99th percentile) 0.04 ppm (state)	
Sulfate 24-hour average	25 μg/m^3 (state)	
CO 1-hour average 8-hour average	South Coast AQMD is in attainment; project is significant if it causes or contributes to an exceedance of the following attainment standards: 20 ppm (state) and 35 ppm (federal) 9.0 ppm (state/federal)	
Lead 30-day Average Rolling 3-month average	1.5 μg/m^3 (state) 0.15 μg/m^3 (federal)	

[a] Source: South Coast AQMD CEQA Handbook (South Coast AQMD, 1993)
[b] Ambient air quality thresholds for criteria pollutants based on South Coast AQMD Rule 1303, Table A-2 unless otherwise stated.
[c] Ambient air quality threshold based on South Coast AQMD Rule 403.

KEY: lbs/day = pounds per day ppm = parts per million μg/m^3 = microgram per cubic meter ≥ = greater than or equal to
MT/yr CO_2eq = metric tons per year of CO_2 equivalents > = greater than

Revision: March 2023

Discussion

PAR 463 applies to storage tanks located at 429 facilities including refineries, bulk storage, loading, and oil production facilities. Staff estimates 20 tanks will need to be domed and 22 tanks will need secondary roof seals installed. PAR 463 is estimated to reduce VOC emissions by ~~0.43~~ 1.65 ton per day. The components of PAR 463 that would be expected to have physical effects are installing domes on EFR tanks and secondary roof seals on IFR tanks. Other components of PAR 463, such as requirements for conducting optical gas imaging tank farm inspections every other calendar week, ~~semi-annual~~ component inspections twice per year at four- to eight-month intervals and implementing recordkeeping and reporting provisions are not expected to create any secondary adverse environmental impacts.

III. a) No Impact. The South Coast AQMD is required by law to prepare a comprehensive district-wide AQMP which includes strategies (e.g., control measures) to reduce emission levels to achieve and maintain state and federal ambient air quality standards, and to ensure that new sources of emissions are planned and operated to be consistent with the South Coast AQMD's air quality goals. The AQMP's air pollution reduction strategies include control measures which target stationary, area, mobile, and indirect sources. These control measures are based on feasible methods of attaining ambient air quality standards. Pursuant to the provisions of both the state and federal Clean Air Acts, the South Coast AQMD is also required to attain the state and federal ambient air quality standards for all criteria pollutants.

The most recent regional blueprints for how the South Coast AQMD will achieve air quality standards and healthful air are outlined in the 2022 AQMP[12] which contains multiple goals of promoting reductions of criteria air pollutants, greenhouse gases, and toxics. In particular, the 2022 AQMP contains Control Measure FUG-01– Improved Leak Detection and Repair (LDAR), which explores the potential for newer leak detection technologies to improve current LDAR requirements thereby reducing emissions of VOC from fugitive leaks from process and storage equipment from a variety of sources including, but not limited to, oil and gas production, petroleum refining, storage and transfer, etc.

The proposed project is not expected to obstruct or conflict with the implementation of the 2022 AQMP because minimizing VOC emissions from implementing the proposed project is in accordance with the emission reduction goals in the 2022 AQMP, and in particular, Control Measure FUG-01. Thus, implementing the proposed project would not conflict with or obstruct implementation of the applicable air quality plan.

III. b) and e) Less Than Significant Impact. While the proposed project is designed to reduce fugitive VOC emissions from aboveground storage tanks, secondary air quality impacts are expected due to PAR 463 physical activities that would occur from its implementation, in particular from the assembly and installation of domes on EFR tanks, and the installation of secondary roof seals on IFR tanks. Other components of PAR 463, such as requirements for conducting optical gas imaging tank farm inspections every other calendar week, ~~semi-annual~~ component inspections twice per year at four- to eight-month intervals and implementing recordkeeping and reporting provisions are not expected to create any secondary adverse air quality impacts. Because the proposed project will not affect operation, no secondary adverse

[12] South Coast AQMD, Final 2022 Air Quality Management Plan, December 2022. http://www.aqmd.gov/home/air-quality/clean-air-plans/air-quality-mgt-plan

impacts to air quality or greenhouse gases are expected from operation. Thus, the analysis in this EA only examines the potential adverse air quality impacts from construction activities.

Construction Impacts

PAR 463 provides long time frames for when domes are required to be installed on applicable storage tanks in accordance with subparagraph (d)(1)(H), as follows: all applicable storage tanks after being ~~emptied~~ cleaned or degassed but no later than 20 years after a true vapor pressure test indicates the organic liquid stored is ≥ 3.0 psia. The effective date of this provision is June 7, 2027, to allow for planning and budgetary considerations. In addition, construction activities associated with installing domes are expected to occur concurrently in situations when requirements other than PAR 463 necessitate emptying ~~cleaning~~ and degassing the tank. For example, PAR 463 subparagraph (d)(2)(D) specifies that the timing of construction should be coordinated and coincide with when the storage tank is next ~~emptied~~ cleaned or degassed when installing secondary roof seals on IFR tanks. For these reasons, storage tank cleaning ~~emptying~~ and degassing activities are not considered unique to PAR 463 and as such, the environmental impacts from these activities are excluded from the analysis of construction activities. In addition, no grading or site preparation activities are required for constructing domes. Thus, this construction analysis focuses on impacts from the combined efforts associated with: 1) doming EFR tanks which involves assembling the dome, lifting it, and installing the dome; and 2) installing secondary roof seals on IFR tanks as a one-step process.

Because of the long timeframe (e.g., up to 20 years) allowing facility operators to comply with PAR 463 and because of varying tank ages combined with the fact that only 20 tanks will need to be domed and 22 tanks will need secondary roof seals, as a practical matter, it is unlikely that construction will occur on more than one tank at a time at an affected facility, or that a large number of facilities will concurrently be under construction on the same day. However, since multiple facilities have both EFR and IFR tanks that would be subject to the requirements in PAR 463 and which may need to be domed and/or have secondary roof seals installed, this analysis considers a worst-case scenario and assumes that five EFR tanks would be domed and 11 IFR tanks would have secondary roof seals installed on a peak day.

Because the nature of the physical modifications that may occur if PAR 463 is implemented is similar to physical modifications analyzed for the September 2023 amendment to Rule 1178, the following construction analysis incorporates information from the September 2023 Final Environmental Assessment (EA) for Rule 1178.[13] While the largest tank analyzed in the September 2023 Final EA for Rule 1178 had a diameter of 260 feet, the largest tank in the PAR 463 universe of equipment is somewhat larger at 299 feet in diameter. Nonetheless, the construction process for PAR 463, including the construction equipment used and timeframes, is expected to be the same or similar to what was analyzed in the September 2023 Final EA for Rule 1178.

The following bullets summarize the assumptions relied upon for the construction analysis:

Doming an External Floating Roof Tank

- On-road Motor Vehicles:
  - 1 Material Delivery Truck driving 50 miles per day

[13] South Coast AQMD, Final Environmental Assessment for Proposed Amended Rule 1178 - Further Reductions of VOC Emissions from Storage Tanks at Petroleum Facilities, September 2023. http://www.aqmd.gov/docs/default-source/ceqa/documents/aqmd-projects/2023/final-environmental-assessment-for-proposed-amended-rule-1178.pdf

- 10 Worker Vehicles driving 40 miles per day

- Off-road Construction Equipment:
  - 1 Crane, 3 Welders, and 1 Compressor each operating for 10 hours per day, 6 days per week, for 16 weeks

Installing Secondary Roof Seals on an Internal Floating Roof Tank

- On-road Motor Vehicles:
  - 1 Material Delivery Truck driving 50 miles per day
  - 10 Worker Vehicles driving 40 miles per day
- Off-road Construction Equipment:
  - 1 Crane for 4 hours per day, 5 days per week, and 8 weeks
  - 1 Compressor for 8 hours per day, 5 days per week, and 8 weeks

Criteria pollutant emissions were calculated for off-road construction equipment used for retrofitting the storage tanks and on-road motor vehicles transporting workers and material deliveries during construction using the California Emissions Estimator Model® (CalEEMod), version 2022.1.1.21. The detailed output reports for the CalEEMod[14] runs, and a summary excel sheet with the peak daily construction impacts by construction activity type and season are included in Appendix B.

Table 2-2 summarizes the peak daily emissions associated with doming one EFR tank, installing a secondary roof seal on one tank, and the worst-case scenario based on the assumption that five EFR tanks would be domed and 11 IFR tanks would have secondary roof seals installed on a peak day.

Table 2-2
Peak Daily Construction Emissions by Pollutant (lb/day)

Construction Activity	VOC	NOx	CO	SOx	PM10	PM2.5
Doming 1 EFR Tank	1.37	10.90	13.40	0.03	0.67	0.40
Installing a Secondary Roof Seal on 1 IFR Tank	0.52	3.93	5.55	0.01	0.45	0.19
Doming 5 EFR Tanks and Installing Secondary Roof Seals on 11 IFR Tanks	**12.57**	**97.95**	**128.05**	**0.26**	**8.3**	**4.09**
Significance Threshold for Construction	75	100	550	150	150	55
Significant?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**

The air quality analysis indicates that the peak daily construction emissions do not exceed the South Coast AQMD's air quality significance thresholds for any pollutant during construction. Thus, the air quality impacts during construction are concluded to be less than significant.

[14] CalEEMod is a statewide land use emissions computer model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify potential criteria pollutant and greenhouse gas emissions associated with both construction and operations from a variety of land use projects.

Cumulatively Considerable Impacts

Based on the foregoing analysis, since criteria pollutant project-specific air quality impacts from implementing the proposed project would not be expected to exceed any of the air quality significance thresholds in Table 2-1, cumulative air quality impacts are also expected to be less than significant. South Coast AQMD cumulative air quality significance thresholds are the same as project-specific air quality significance thresholds. Therefore, potential adverse impacts from implementing the proposed project would not be "cumulatively considerable" as defined by CEQA Guidelines Section 15064(h)(1) for air quality impacts. Per CEQA Guidelines Section 15064(h)(4), the mere existence of significant cumulative impacts caused by other projects alone shall not constitute substantial evidence that the proposed project's incremental effects are cumulatively considerable.

The South Coast AQMD's guidance on addressing cumulative impacts for air quality is as follows: "As Lead Agency, the South Coast AQMD uses the same significance thresholds for project specific and cumulative impacts for all environmental topics analyzed in an Environmental Assessment or EIR." "Projects that exceed the project-specific significance thresholds are considered by the South Coast AQMD to be cumulatively considerable. This is the reason project-specific and cumulative significance thresholds are the same. Conversely, projects that do not exceed the project-specific thresholds are generally not considered to be cumulatively significant."[15]

This approach was upheld by the Court in *Citizens for Responsible Equitable Environmental Development v. City of Chula Vista* (2011) 197 Cal. App. 4th 327, 334. The Court determined that where it can be found that a project did not exceed the South Coast AQMD's established air quality significance thresholds, the City of Chula Vista properly concluded that the project would not cause a significant environmental effect, nor result in a cumulatively considerable increase in these pollutants. The court found this determination to be consistent with CEQA Guidelines Section 15064.7, stating, "The lead agency may rely on a threshold of significance standard to determine whether a project will cause a significant environmental effect." The court found that, "Although the project will contribute additional air pollutants to an existing non-attainment area, these increases are below the significance criteria…" "Thus, we conclude that no fair argument exists that the Project will cause a significant unavoidable cumulative contribution to an air quality impact." As in *Chula Vista*, here the South Coast AQMD has demonstrated, when using accurate and appropriate data and assumptions, that the project will not exceed the established South Coast AQMD significance thresholds. See also, *Rialto Citizens for Responsible Growth v. City of Rialto* (2012) 208 Cal. App. 4th 899. Here again the court upheld the South Coast AQMD's approach to utilizing the established air quality significance thresholds to determine whether the impacts of a project would be cumulatively considerable. Thus, it may be concluded that the proposed project would not contribute to a significant unavoidable cumulative air quality impact. Since no cumulatively significant air quality impacts were identified, no mitigation measures are necessary or required.

[15] South Coast AQMD Cumulative Impacts Working Group White Paper on Potential Control Strategies to Address Cumulative Impacts From Air Pollution, August 2003, Appendix D, Cumulative Impact Analysis Requirements Pursuant to CEQA, at D-3. http://www.aqmd.gov/docs/default-source/Agendas/Environmental-Justice/cumulative-impacts-working-group/cumulative-impacts-white-paper-appendix.pdf

III. c) Less Than Significant Impact.

Toxic Air Contaminants (TACs) During Construction

Diesel powered vehicles and equipment would be utilized during construction activities. Diesel PM is considered a carcinogenic and chronic TAC. A construction activity would be completed within four months; thus, a Health Risk Assessment (HRA) was not conducted, which is consistent with the Office of Environmental Health Hazard Assessment (OEHHA) Guidance Manual (2015). The analysis in Section III b) and e) concluded that the quantity of pollutants that may be generated from implementing the proposed project would be less than significant during construction. Because the emissions from all activities that may occur as part of implementing the proposed project are at less than significant levels, neither would the emissions be substantial, regardless of whether sensitive receptors are located near the affected facilities. Therefore, PAR 463 is not expected to generate significant adverse TAC impacts from construction or expose sensitive receptors to substantial pollutant concentrations. Since no significant air quality impacts were identified for TACs, no mitigation measures are necessary or required.

III. d) Less Than Significant Impact.

Odor Impacts

Odor problems depend on individual circumstances. For example, individuals can differ quite markedly from the populated average in their sensitivity to odor due to any variety of innate, chronic or acute physiological conditions. This includes olfactory adaptation or smell fatigue (i.e., continuing exposure to an odor usually results in a gradual diminution or even disappearance of the small sensation).

During construction, diesel-fueled equipment and vehicles would be operated. Diesel fuel is required to have a low sulfur content (e.g., 15 ppm by weight or less) in accordance with South Coast AQMD Rule 431.2 – Sulfur Content of Liquid Fuels[16]; thus, the fuel is expected to have minimal odor. The operation of construction equipment would occur within the boundaries of existing affected facilities. It would be expected that sufficient dispersion of diesel emissions over distance generally occurs such that odors associated with diesel emissions may not be discernable to off-site receptors, depending on the location of the equipment and its distance relative to the nearest off-site receptor. The diesel trucks and equipment that would be operated on-site as a part of construction activities would not be allowed to idle longer than five minutes per any one location in accordance with the CARB idling regulation[17], so lingering odors from idling vehicles would not be expected. In addition, construction activities would be temporary. Thus, PAR 463 is not expected to create significant adverse objectionable odors during construction. Since no significant air quality impacts were identified for odors, no mitigation measures for odors are necessary or required.

[16] South Coast AQMD, Rule 431.2 – Sulfur Content of Liquid Fuels, September 15, 2000. http://www.aqmd.gov/docs/default-source/rule-book/rule-iv/rule-431-2.pdf

[17] CARB, Guide to Off-Road Vehicle & Equipment Regulations, https://ww2.arb.ca.gov/sites/default/files/offroadzone/pdfs/offroad_booklet.pdf.

III. f) and g) Less Than Significant Impacts.

Greenhouse Gas (GHG) Impacts

Significant changes in global climate patterns have recently been associated with global warming, an average increase in the temperature of the atmosphere near the Earth's surface, attributed to accumulation of GHG emissions in the atmosphere. GHGs trap heat in the atmosphere, which in turn heats the surface of the Earth. Some GHGs occur naturally and are emitted to the atmosphere through natural processes, while others are created and emitted solely through human activities. The emission of GHGs through the combustion of fossil fuels (i.e., fuels containing carbon) in conjunction with other human activities, appears to be closely associated with global warming. State law defines GHG to include the following: carbon dioxide (CO2), methane (CH4), nitrous oxide (N2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF6) (Health and Safety Code Section 38505(g)). The most common GHG that results from human activity is CO2, followed by CH4 and N2O.

Traditionally, GHGs and other global warming pollutants are perceived as solely global in their impacts and that increasing emissions anywhere in the world contributes to climate change anywhere in the world. A study conducted on the health impacts of CO2 "domes" that form over urban areas cause increases in local temperatures and local criteria pollutants, which have adverse health effects[18].

The analysis of GHGs is a different analysis than the analysis of criteria pollutants for the following reasons. For criteria pollutants, the significance thresholds are based on daily emissions because attainment or non-attainment is primarily based on daily exceedances of applicable ambient air quality standards. Further, several ambient air quality standards are based on relatively short-term exposure effects on human health (e.g., one-hour and eight-hour standards). Since the half-life of CO2 is approximately 100 years, for example, the effects of GHGs occur over a longer term which means they affect the global climate over a relatively long timeframe. As a result, the South Coast AQMD's current position is to evaluate the effects of GHGs over a longer timeframe than a single day (i.e., annual emissions). GHG emissions are typically considered to be cumulative impacts because they contribute to global climate effects.

Since GHG impacts are defined on an annual, instead of a peak daily basis, the GHG emissions for construction were quantified by summing all of the GHGs occurring during construction activities for installing 20 domes on EFR tanks, and 22 secondary roof seals on IFR tnks, and then amortizing the total construction GHGs over 30 years.

The South Coast AQMD convened a "Greenhouse Gas CEQA Significance Threshold Working Group" to consider a variety of benchmarks and potential significant thresholds to evaluate GHG impacts. On December 5, 2008, the South Coast AQMD adopted an interim CEQA GHG Significance Threshold for projects where the South Coast AQMD is the lead agency (South Coast AQMD 2008). This GHG interim threshold is set at 10,000 metric tons (MT) of CO2 equivalent emissions (CO2eq) per year. Projects with incremental increases below this threshold will not be

[18] Jacobsen, Mark Z. Environmental Protection Agency Hearing on California Waiver: "Effects of Local CO2 Domes and of Global CO2 Changes on California's Air Pollution and Health," March 5, 2009. https://web.stanford.edu/group/efmh/jacobson/PDFfiles/0903EPACalif.pdf

cumulatively considerable. GHG impacts from the implementation of the proposed project were calculated at the project-specific level during construction activities.

PAR 463 involves construction activities associated with installing domes on 20 EFR tanks and installing secondary seals on 22 IFR tanks which rely on construction equipment that emit GHGs when in use. Once construction is completed, PAR 463 does not have any requirements that would generate GHGs during operation of the storage tanks. Table 2-3 summarizes the GHG analysis which shows that the proposed project may result in the generation of 97 MT per year of CO2eq from construction activities, which is less than the South Coast AQMD's air quality significance threshold for GHGs. Detailed calculations of project GHG emissions can be found in Appendix B.

Table 2-3
Summary of GHG Emissions

Construction Activity	CO2eq Emissions (MT/yr)
Doming 1 EFR Tank	118
Installing Secondary Roof Seals on 1 IFR Tank	26
Doming 20 EFR Tanks and Installing Secondary Roof Seals on 22 IFR Tanks	**97**
Significance Threshold	10,000
Significant?	**No**

Note: 1 metric ton = 2,205 pounds. GHGs from short-term construction activities are amortized over 30 years.

As shown in Table 2-3, the South Coast AQMD air quality significance threshold for GHGs would not be exceeded. For this reason, implementing the proposed project would not be expected to generate significant adverse cumulative GHG air quality impacts. Further, as noted in Section III. a), implementation of the proposed project would not be expected to conflict with an applicable plan, policy or regulation adopted for the purpose of reducing criteria pollutants and the same is true for GHG emissions since the quantity of increased GHG emissions is at less than significant levels. Since significant air quality impacts were not identified for GHGs, no mitigation measures are necessary or required.

Conclusion
Based upon these considerations, significant air quality and GHG emissions impacts are not expected from implementing the proposed project. Since no significant air quality and GHG emissions impacts were identified, no mitigation measures are necessary or required.

		Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
IV.	**<u>BIOLOGICAL RESOURCES</u>.** Would the project:				
a)	Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☐	☑
b)	Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☐	☑
c)	Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☑
d)	Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☐	☑
e)	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☑
f)	Conflict with the provisions of an adopted Habitat Conservation plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☑

Significance Criteria

Impacts on biological resources will be considered significant if any of the following criteria apply:

- The project results in a loss of plant communities or animal habitat considered to be rare, threatened or endangered by federal, state or local agencies.
- The project interferes substantially with the movement of any resident or migratory wildlife species.
- The project adversely affects aquatic communities through construction or operation of the project.

Discussion

PAR 463 applies to storage tanks located at 429 facilities including refineries, bulk storage, loading, and oil production facilities. Staff estimates 20 tanks will need to be domed and 22 tanks will need secondary roof seals installed. PAR 463 is estimated to reduce VOC emissions by ~~0.43~~ 1.65 ton per day. The components of PAR 463 that would be expected to have physical effects are installing domes on EFR tanks and secondary roof seals on IFR tanks. Other components of PAR 463, such as requirements for conducting optical gas imaging tank farm inspections every other calendar week, ~~semi-annual~~ component inspections twice per year at four- to eight-month intervals and implementing recordkeeping and reporting provisions are not expected to create any secondary adverse environmental impacts.

IV. a), b), c), & d) No Impact. Implementation of PAR 463 would occur at existing affected facilities, which are located in industrial areas. Additionally, the physical improvements are expected to occur within the existing facility property boundaries which have been previously disturbed. Thus, PAR 463 is not expected to adversely affect in any way habitats that support riparian habitat, federally protected wetlands, or migratory corridors. Similarly, special status plants, animals, or natural communities identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service are not expected to be found on or in close proximity to affected facilities. Therefore, PAR 463 would have no direct or indirect impacts that could adversely affect plant or animal species or the habitats on which they rely. PAR 463 does not require the acquisition of additional land or further conversions of riparian habitats or sensitive natural communities where endangered or sensitive species may be found. In addition, any construction from the implementation of PAR 463 would take place at the existing facilities and would not occur on or near a wetland or in the path of migratory species.

IV. e) & f) No Impact. The proposed project is not expected to conflict with local policies or ordinances protecting biological resources or local, regional, or state conservation plans, because land use and other planning considerations are determined by local governments and no land use or planning requirements would be altered by implementation of PAR 463. Projects resulting in an air quality benefit: decreasing air pollutant emissions while not changing the type of pollutants emitted, will not conflict with any U.S. Department of Fish and Wildlife Habitat Conservation Plans (HCP). In addition, the doming and secondary roof seal requirements imposed on the existing storage tanks due to the implementation of PAR 463 will not necessitate ant grading activities that could adversely impact any natural habitat. Thus, PAR 463 would not conflict with any adopted HCP, Natural Community Conservation Plan, or any other relevant habitat conservation plan, and would not create divisions in any existing communities because compliance with PAR 463 would occur at existing facilities in previously disturbed areas which are not typically subject to Habitat or Natural Community Conservation Plans.

Conclusion

Based upon these considerations, significant biological resource impacts are not expected from implementing the proposed project. Since no significant biological resource impacts were identified, no mitigation measures are necessary or required.

		Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
V.	**CULTURAL AND TRIBAL CULTURAL RESOURCES.** Would the project:				
a)	Cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines Section 15064.5?	☐	☐	☐	☑
b)	Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5?	☐	☐	☐	☑
c)	Disturb any human remains, including those interred outside of dedicated cemeteries?	☐	☐	☐	☑
d)	Cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code Section 21074, as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American Tribe, and that is either:				
	• Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k)?	☐	☐	☐	☑
	• A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in Public Resources Code Section 5024.1(c)? (In applying the criteria set forth in Public Resources Code Section 5024.1(c), the lead agency shall consider the significance of the resource to a California Native American tribe.)	☐	☐	☐	☑

Significance Criteria

Impacts to cultural resources will be considered significant if:

- The project results in the disturbance of a significant prehistoric or historic archaeological site or a property of historic or cultural significance, or tribal cultural significance to a community or ethnic or social group or a California Native American tribe.
- Unique resources or objects with cultural value to a California Native American tribe are present that could be disturbed by construction of the proposed project.
- The project would disturb human remains.

Discussion

PAR 463 applies to storage tanks located at 429 facilities including refineries, bulk storage, loading, and oil production facilities. Staff estimates 20 tanks will need to be domed and 22 tanks will need secondary roof seals installed. PAR 463 is estimated to reduce VOC emissions by ~~0.43~~ 1.65 ton per day. The components of PAR 463 that would be expected to have physical effects are installing domes on EFR tanks and secondary roof seals on IFR tanks. Other components of PAR 463, such as requirements for conducting optical gas imaging tank farm inspections every other calendar week, ~~semi-annual~~ component inspections twice per year at four- to eight-month intervals and implementing recordkeeping and reporting provisions are not expected to create any secondary adverse environmental impacts.

V. a) No Impact. There are existing laws in place that are designed to protect and mitigate potential impacts to cultural resources. For example, CEQA Guidelines state that generally, a resource shall be considered "historically significant" if the resource meets the criteria for listing in the California Register of Historical Resources, which include the following:

- Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
- Is associated with the lives of persons important in our past;
- Embodies the distinctive characteristics of a type, period, region, or method of construction, or represent the work of an important creative individual, or possesses high artistic values;
- Has yielded or may likely to yield information important in prehistory or history (CEQA Guidelines Section 15064.5).

Buildings, structures, and other potential culturally significant resources that are less than 50 years old are generally excluded from listing in the National Register of Historic Places, unless they are shown to be exceptionally important. Buildings or structures that may be affected by PAR 463 are used for industrial purposes and would generally not be considered to be historically significant, since they would not have any of the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values. Therefore, PAR 463 is not expected to cause any impacts to historically significant cultural resources.

V. b), c), & d) No Impact. Construction-related activities associated with installing domes and secondary roof seals on existing IFR tanks are expected to be confined within the affected existing industrial facility boundaries and will occur aboveground. In addition, as mentioned in Section V. a) the existing storage tanks subject to PAR 463 are considered heavy industrial equipment and as such, are not unique resources or identified as having any cultural or tribal importance. Thus, PAR

463 is not expected to require physical changes to the environment which may disturb paleontological or archaeological resources. Furthermore, it is envisioned that these areas are already either devoid of significant cultural resources or whose cultural resources have been previously disturbed. Therefore, PAR 463 has no potential to cause a substantial adverse change to a historical or archaeological resource, directly or indirectly to destroy a unique paleontological resource or site or unique geologic feature, or to disturb any human remains, including those interred outside formal cemeteries. Implementing PAR 463 is, therefore, not anticipated to result in any activities or promote any programs that could have a significant adverse impact on cultural resources.

PAR 463 is not expected to require physical changes to a site, feature, place, cultural landscape, sacred place or object with cultural value to a California Native American Tribe. Furthermore, PAR 463 is not expected to result in a physical change to a resource determined to be eligible for inclusion or listed in the California Register of Historical Resources or included in a local register of historical resources. Similarly, PAR 463 is not expected to result in a physical change to a resource determined by the South Coast AQMD to be significant to any tribe. For these reasons, PAR 463 is not expected to cause any substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code Section 21074.

As part of releasing this CEQA document for public review and comment, the South Coast AQMD also provided a formal notice of the proposed project to all California Native American Tribes (Tribes) that requested to be on the Native American Heritage Commission's (NAHC) notification list per Public Resources Code Section 21080.3.1(b)(1). The NAHC notification list provides a 30-day period during which a Tribe may respond to the formal notice, in writing, requesting consultation on the proposed project.

In the event that a Tribe submits a written request for consultation during this 30-day period, the South Coast AQMD will initiate a consultation with the Tribe within 30 days of receiving the request in accordance with Public Resources Code Section 21080.3.1(b). Consultation ends when either: 1) both parties agree to measures to avoid or mitigate a significant effect on a Tribal Cultural Resource and agreed upon mitigation measures shall be recommended for inclusion in the environmental document [see Public Resources Code Section 21082.3(a)]; or 2) either party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached [see Public Resources Code Section 21080.3.2(b)(1)-(2) and Section 21080.3.1(b)(1)].

Conclusion

Based upon these considerations, significant adverse cultural and tribal cultural resources impacts are not expected from implementing the proposed project. Since no significant cultural and tribal cultural resources impacts were identified, no mitigation measures are necessary or required.

		Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
VI.	**ENERGY.** Would the project:				
a)	Conflict with or obstruct adopted energy conservation plans, a state or local plan for renewable energy, or energy efficiency?	☐	☐	☐	☑
b)	Result in the need for new or substantially altered power or natural gas utility systems?	☐	☐	☑	☐
c)	Create any significant effects on local or regional energy supplies and on requirements for additional energy?	☐	☐	☑	☐
d)	Create any significant effects on peak and base period demands for electricity and other forms of energy?	☐	☐	☑	☐
e)	Comply with existing energy standards?	☐	☐	☐	☑
f)	Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☐	☑
g)	Require or result in the relocation or construction of new or expanded electric power, natural gas or telecommunication facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☐	☑

Significance Criteria

Impacts to energy resources will be considered significant if any of the following criteria are met:

- The project conflicts with adopted energy conservation plans or standards.
- The project results in substantial depletion of existing energy resource supplies.
- An increase in demand for utilities impacts the current capacities of the electric and natural gas utilities.
- The project uses energy resources in a wasteful and/or inefficient manner.

Discussion
PAR 463 applies to storage tanks located at 429 facilities including refineries, bulk storage, loading, and oil production facilities. Staff estimates 20 tanks will need to be domed and 22 tanks will need secondary roof seals installed. PAR 463 is estimated to reduce VOC emissions by ~~0.43~~ 1.65 ton per day. The components of PAR 463 that would be expected to have physical effects are installing domes on EFR tanks and secondary roof seals on IFR tanks. Other components of PAR 463, such as requirements for conducting optical gas imaging tank farm inspections every other calendar week, ~~semi-annual~~ component inspections twice per year at four- to eight-month intervals and implementing recordkeeping and reporting provisions are not expected to create any secondary adverse environmental impacts.

VI. a), e), f), & g) No Impact. The proposed project is not expected to conflict with any adopted energy conservation plans or violate any energy conservation standards because existing facilities would be expected to continue implementing any existing energy conservation plans that are currently in place regardless of whether the proposed project is implemented. The effects of implementing PAR 463 would apply to existing facilities. Any energy resources that may be necessary to dome EFR tanks, install secondary roof seals on IFR tanks, and utilize additional OGI technology would be used to achieve reductions in VOC; and therefore, would not be using non-renewable resources in a wasteful manner. For these reasons, the proposed project is not expected to conflict with energy conservation plans or existing energy standards, or use non-renewable resources in a wasteful manner. In addition, the construction and operation of domes is not expected to rely on electric power, natural gas or telecommunication facilities, as such PAR 463 will not cause the relocation or construction of new or expanded electric power, natural gas or telecommunication facilities. Therefore, no impacts are expected.

VI. b), c), & d) Less Than Significant Impact.

Fuel Usage during Construction
Implementation of the proposed project would result in the installation of domes and secondary roof seals, and the utilization of OGI technology. To accomplish these activities, use of energy in terms of gasoline and diesel fuel would be needed for on-road passenger vehicles and heavy duty trucks associated with delivering supplies and construction materials, and off-road construction equipment, respectively. While construction under the proposed project is expected to be spaced out across multiple years, to estimate worst-case energy impacts associated with construction activities, South Coast AQMD staff estimated the total gasoline and diesel fuel consumption for doming 20 EFR tanks and installing secondary roof seals for 22 tanks all occurring in one year. Each installation of a dome or secondary seal is estimated to require 10 worker trips and one material delivery trip per day, with doming requiring one crane, three welders, and one air compressor, each for 10 hours per day and 97 days for completion (~ six days per week for 16 weeks); and installation of secondary roof seals requiring one crane four hours per day and one air compressor eight hours per day and 42 days for completion (~ 5 days per week for 8 weeks).

On-road passenger vehicles were modelled as gasoline passenger cars (LDA) and light-duty trucks (LDT1 and LDT2) traveling 40 miles per day, and heavy duty trucks associated with delivering supplies and construction materials were modelled as diesel Tier 7 CA International Registration Plan Trucks (T7 CAIRP) travelling 50 miles per day. Fuel use was estimated using EMFAC2021 version 1.0.2 for calendar year 2026. Fuel use for offroad equipment was estimated using equipment specifications from CalEEMod version 2022.1.1.21 and OFFROAD2021 version 1.0.3. Table 2-4 summarizes the projected fuel use impacts associated with construction activities and

compares it to the gasoline and diesel consumption rates in the South Coast AQMD jurisdiction, for 2017. Detailed fuel use calculations can be found in Appendix B.

Table 2-4
Annual Total Projected Fuel Usage for Construction Activities

	Diesel	Gasoline
Projected Construction Energy Use (gal/yr)	73,474	4,238
Year 2017 South Coast AQMD Jurisdiction Estimated Fuel Demand (gal/yr)	775,000,000	7,086,000,000
Total Increase Above Baseline	0.00948%	0.000060%
Significance Threshold	1%	1%
Significant?	**No**	**No**

Based on the foregoing analyses, the construction-related activities associated with the implementation of the proposed project would not use energy in a wasteful manner, would not result in substantial depletion of existing energy resource supplies, or create a significant demand of energy when compared to existing supplies. Thus, there are no significant adverse energy impacts associated with the implementation of PAR 463.

Conclusion
Based upon these considerations, significant adverse energy impacts are not expected from implementing the proposed project. Since no significant energy impacts were identified, no mitigation measures are necessary or required.

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
VII. <u>GEOLOGY AND SOILS</u>. Would the project:				
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
• Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?	☐	☐	☐	☑
• Strong seismic ground shaking?	☐	☐	☐	☑
• Seismic-related ground failure, including liquefaction?	☐	☐	☐	☑
• Landslides?	☐	☐	☐	☑
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☐	☑
c) Be located on a geologic unit or soil that is unstable or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☐	☑
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☐	☐	☑
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☑
f) Directly or indirectly destroy a unique paleontological resource or site or unique geological feature?	☐	☐	☐	☑

Significance Criteria

Impacts on the geological environment will be considered significant if any of the following criteria apply:

- Topographic alterations would result in significant changes, disruptions, displacement, excavation, compaction or over covering of large amounts of soil.
- Unique geological resources (paleontological resources or unique outcrops) are present that could be disturbed by the construction of the proposed project.
- Exposure of people or structures to major geologic hazards such as earthquake surface rupture, ground shaking, liquefaction or landslides.
- Secondary seismic effects could occur which could damage facility structures, e.g., liquefaction.
- Other geological hazards exist which could adversely affect the facility, e.g., landslides, mudslides.
- Unique paleontological resources or sites or unique geologic features are present that could be directly or indirectly destroyed by the proposed project.

Discussion

PAR 463 applies to storage tanks located at 429 facilities including refineries, bulk storage, loading, and oil production facilities. Staff estimates 20 tanks will need to be domed and 22 tanks will need secondary roof seals installed. PAR 463 is estimated to reduce VOC emissions by ~~0.43~~ 1.65 ton per day. The components of PAR 463 that would be expected to have physical effects are installing domes on EFR tanks and secondary roof seals on IFR tanks. Other components of PAR 463, such as requirements for conducting optical gas imaging tank farm inspections every other calendar week, ~~semi-annual~~ component inspections twice per year at four- to eight-month intervals and implementing recordkeeping and reporting provisions are not expected to create any secondary adverse environmental impacts.

VII. a), b), c), d), e), f) No Impact. The proposed project involves constructing new domes and installing roof tank seals on existing storage tanks located in already developed industrial settings and these activities would occur aboveground and as such, would not require any grading or site preparation activities. Therefore, the proposed project is not expected to adversely affect geophysical conditions in the South Coast AQMD jurisdiction.

Southern California is an area of known seismic activity. As part of the issuance of building permits, local jurisdictions are responsible for assuring that the Uniform Building Code is adhered to and can conduct inspections to ensure compliance. The Uniform Building code is considered to be a standard safeguard against major structural failures and loss of life. The basic formulas used for the Uniform Building Code seismic design require determination of the seismic zone and site coefficient, which represents the foundation condition at the site. The Uniform Building Code requirements also consider liquefaction potential and establish stringent requirements for building foundations in areas potentially subject to liquefaction. The proposed project will not require the modification of existing structures at existing facilities in a manner that would not conform to the Uniform Building Code or any other state and local building codes. Structures must be designed to comply with the Uniform Building Code Zone 4 requirements if they are located in a seismically active area. The Uniform Building Code is considered to be a standard safeguard against major structural failures and loss of life. Thus, the proposed project would not alter the exposure of people or property to geological hazards such as earthquakes, landslides, mudslides, ground failure, or other natural hazards. As a result, substantial exposure of people or structures to the risk of loss,

injury, or death involving the rupture of an earthquake fault, seismic ground shaking, ground failure or landslides is not anticipated.

Physical modifications as a result of the proposed project are limited to retrofitting existing aboveground storage tanks and require no grading activities or soil disturbance that would create any issues with erosion. For this reason, no unstable earth conditions or changes in geologic substructures are expected to result from implementing the proposed project and therefore, no impacts to the loss of topsoil or soil erosion will occur. Further, since soil at existing facilities will not be disturbed, it will not be made further susceptible to expansion or liquefaction. Further, the proposed project will not create any new conditions that would cause subsidence landslides, or alter unique geologic features at any of the facilities. Thus, the proposed project would not be expected to increase or exacerbate any existing risks associated with soils at any facility. Implementation of the proposed project would not involve re-locating facilities on a geologic unit or soil that is unstable or that would become unstable as a result of the project; therefore, it would not be expected to potentially result in on-or off-site landslide, lateral spreading, subsidence, liquefaction or collapse. No impacts are anticipated.

The proposed project would not require the installation of septic tanks or other alternative wastewater disposal systems. Therefore, no persons or property would be exposed to new impacts related to expansive soils or soils incapable of supporting water disposal. Thus, the implementation of the proposed project would not adversely affect soils associated with the installation of a new septic system or alternative wastewater disposal system or modification of an existing sewer.

The proposed project does not cause or require the construction of any new facilities. No previously undisturbed land that may contain a unique paleontological resource or site or unique geological feature would be affected. Therefore, the proposed project is not expected to directly or indirectly destroy a unique paleontological resource or site or unique geological feature.

Conclusion
Based upon these considerations, significant adverse geology and soils impacts are not expected from the implementation of the proposed project. Since no significant geology and soils impacts were identified, no mitigation measures are necessary or required.

		Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
VIII.	**HAZARDS AND HAZARDOUS MATERIALS.** Would the project:				
a)	Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☐	☑
b)	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?	☐	☐	☐	☑
c)	Emit hazardous emissions, or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☑
d)	Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment?	☐	☐	☐	☑
e)	For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☑	☐
f)	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☑
g)	Significantly increased fire hazard in areas with flammable materials?	☐	☐	☐	☑

Significance Criteria

Impacts associated with hazards will be considered significant if any of the following occur:

- Non-compliance with any applicable design code or regulation.
- Non-conformance to National Fire Protection Association standards.
- Non-conformance to regulations or generally accepted industry practices related to operating policy and procedures concerning the design, construction, security, leak detection, spill containment or fire protection.
- Exposure to hazardous chemicals in concentrations equal to or greater than the Emergency Response Planning Guideline (ERPG) 2 levels.

Discussion

PAR 463 applies to storage tanks located at 429 facilities including refineries, bulk storage, loading, and oil production facilities. Staff estimates 20 tanks will need to be domed and 22 tanks will need secondary roof seals installed. PAR 463 is estimated to reduce VOC emissions by ~~0.43~~ 1.65 ton per day. The components of PAR 463 that would be expected to have physical effects are installing domes on EFR tanks and secondary roof seals on IFR tanks. Other components of PAR 463, such as requirements for conducting optical gas imaging tank farm inspections every other calendar week, ~~semi-annual~~ component inspections twice per year at four- to eight-month intervals and implementing recordkeeping and reporting provisions are not expected to create any secondary adverse environmental impacts.

VIII. a), b) & c) No Impact. While the proposed project will result in construction at affected facilities, doming EFR tanks, installing secondary roof seals on IFR tanks, and utilizing additional OGI technology will not require use or disposal of hazardous materials. Implementation of the proposed project is not expected to affect operations pertaining to hazardous materials, such as the processing of petroleum; thus, there will be no increase in nor creation of: a) significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials; b) significant hazard to the public or the environment in the event of upset or accident conditions involving the release of hazardous materials from these storage tanks into the environment; or c) hazardous emissions or the handling of hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school if an existing facility happens to be located near an existing or proposed school.

VIII. d) No Impact. Government Code Section 65962.5 refers to hazardous waste handling practices at facilities subject to the Resources Conservation and Recovery Act (RCRA). Implementation of the proposed project is not expected to affect operations pertaining to hazardous materials, such as the processing of petroleum; thus, there will be no increase in or creation of a new significant hazard to the public or the environment if an existing facility happens to be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5.

VIII. e) Less than Significant Impact. Federal Aviation Administration regulation, 14 CFR Part 77 – Safe, Efficient Use and Preservation of the Navigable Airspace, provide information regarding the types of projects that may affect navigable airspace. Projects may adversely affect navigable airspace if they involve construction or alteration of structures greater than 200 feet above ground level within a specified distance from the nearest runway or objects within 20,000 feet of an airport or seaplane base with at least one runway more than 3,200 feet in length and the object would exceed a slope of 100:1 horizontally (100 feet horizontally for each one foot vertically from the nearest point of the runway). Some facilities may be located within a two-mile

radius of an airport that may require potential construction activities to install domes and roof tank seals on existing storage tanks. However, none of these facilities' storage tanks are expected to be taller than 200 feet above-ground. In addition, these facilities may have other heavy industrial equipment that will not be affected by PAR 463 but that are much taller than the existing storage tanks. Thus, for the facilities located near a runway or an airport, the facility operators will already have safety protocols and procedures in place for alerting the Federal Aviation Administration of any potential changes involving equipment greater than 200 feet above ground level. Thus, implementation of PAR 463 is not expected to interfere with navigable airspace or affect existing operations pertaining to hazardous materials, such as the processing of petroleum. Finally, PAR 463 does not contain any requirements that would interfere with any applicable design code or regulation the Federal Aviation Administration may have in effect for safety reasons. Thus, there will be no significant increase in existing safety hazards or the creation of new safety hazards to peoples working or residing in the vicinity of public/private airports.

VIII. f) No Impact. Health and Safety Code Section 25506 specifically requires all businesses handling hazardous materials to submit a business emergency response plan to assist local administering agencies in the emergency release or threatened release of a hazardous material. Business emergency response plans generally require the following:

- Identification of individuals who are responsible for various actions, including reporting, assisting emergency response personnel and establishing an emergency response team;
- Procedures to notify the administering agency, the appropriate local emergency rescue personnel, and the California Office of Emergency Services;
- Procedures to mitigate a release or threatened release to minimize any potential harm or damage to persons, property or the environment;
- Procedures to notify the necessary persons who can respond to an emergency within the facility;
- Details of evacuation plans and procedures;
- Descriptions of the emergency equipment available in the facility;
- Identification of local emergency medical assistance; and,
- Training (initial and refresher) programs for employees in:
    1. The safe handling of hazardous materials used by the business;
    2. Methods of working with the local public emergency response agencies;
    3. The use of emergency response resources under control of the handler;
    4. Other procedures and resources that will increase public safety and prevent or mitigate a release of hazardous materials.

In general, every county or city and all facilities using a minimum amount of hazardous materials are required to formulate detailed contingency plans to eliminate, or at least minimize, the possibility and effect of fires, explosion, or spills. In conjunction with the California Office of Emergency Services, local jurisdictions have enacted ordinances that set standards for area and business emergency response plans. These requirements include immediate notification,

mitigation of an actual or threatened release of a hazardous material, and evacuation of the emergency area.

Emergency response plans are typically prepared in coordination with the local city or county emergency plans to ensure the safety of not only the public (surrounding local communities), but the facility employees as well. The proposed project would not impair the implementation of, or physically interfere with any adopted emergency response plans or emergency evacuation plans that may be in place at existing facilities.

VIII. g) No Impact. The Uniform Fire Code and Uniform Building Code set standards intended to minimize risks from flammable or otherwise hazardous materials. Local jurisdictions are required to adopt the uniform codes or comparable regulations. Local fire agencies require permits for the use or storage of hazardous materials and permit modifications for proposed increases in their use. Permit conditions depend on the type and quantity of the hazardous materials at the facility. Permit conditions may include, but are not limited to, specifications for sprinkler systems, electrical systems, ventilation, and containment. The fire departments make annual business inspections to ensure compliance with permit conditions and other appropriate regulations. Further, businesses are required to report increases in the storage or use of flammable and otherwise hazardous materials to local fire departments. Local fire departments ensure that adequate permit conditions are in place to protect against the potential risk of upset. The proposed project would not change the existing requirements and permit conditions for the proper handling of flammable materials.

Conclusion
Based upon these considerations, significant adverse hazards and hazardous materials impacts are not expected from implementing the proposed project. Since no significant hazards and hazardous materials impacts were identified, no mitigation measures are necessary or required.

		Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
IX.	**HYDROLOGY AND WATER QUALITY.** Would the project:				
a)	Violate any water quality standards, waste discharge requirements, or otherwise substantially degrade surface or ground water quality?	☐	☐	☐	☑
b)	Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☐	☑
c)	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
	• Result in substantial erosion or siltation on- or off-site?	☐	☐	☐	☑
	• Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	☐	☐	☐	☑
	• Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☐	☑
	• Impede or redirect flood flows?	☐	☐	☐	☑
d)	In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☐	☑
e)	Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☐	☑

		Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
f)	Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, facilities or new storm water drainage facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☐	☑
g)	Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☐	☑
h)	Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☑

Significance Criteria

Potential impacts on water resources will be considered significant if any of the following criteria apply:

Water Demand:

- The existing water supply does not have the capacity to meet the increased demands of the project, or the project would use more than 262,820 gallons per day of potable water.
- The project increases demand for total water by more than five million gallons per day.

Water Quality:

- The project will cause degradation or depletion of ground water resources substantially affecting current or future uses.
- The project will cause the degradation of surface water substantially affecting current or future uses.
- The project will result in a violation of National Pollutant Discharge Elimination System (NPDES) permit requirements.
- The capacities of existing or proposed wastewater treatment facilities and the sanitary sewer system are not sufficient to meet the needs of the project.
- The project results in substantial increases in the area of impervious surfaces, such that interference with groundwater recharge efforts occurs.
- The project results in alterations to the course or flow of floodwaters.

Discussion
PAR 463 applies to storage tanks located at 429 facilities including refineries, bulk storage, loading, and oil production facilities. Staff estimates 20 tanks will need to be domed and 22 tanks will need secondary roof seals installed. PAR 463 is estimated to reduce VOC emissions by ~~0.43~~ 1.65 ton per day. The components of PAR 463 that would be expected to have physical effects are installing domes on EFR tanks and secondary roof seals on IFR tanks. Other components of PAR 463, such as requirements for conducting optical gas imaging tank farm inspections every other calendar week, ~~semi-annual~~ component inspections twice per year at four- to eight-month intervals and implementing recordkeeping and reporting provisions are not expected to create any secondary adverse environmental impacts.

IX. a), b), e), f), g) & h) No Impact. Implementation of PAR 463 would require construction activities associated with installing domes on existing EFR tanks and installing secondary roof seals on existing IFR tanks. These activities might first require storage tanks to be ~~emptied~~ cleaned and degassed if other repairs are needed, but those steps already occur as part of regular tank inspections, and not because of PAR 463.

PAR 463 subparagraph (d)(2)(D) specifies that the timing of construction should be coordinated and coincide with when the storage tank is next ~~emptied~~ cleaned or degassed when installing secondary roof seals on IFR tanks. For these reasons, storage tank ~~emptying~~ cleaning and degassing activities are not considered unique to PAR 463 and as such, the environmental impacts from these activities are excluded from the analysis of construction activities. It is important to note that dome suppliers and affected facilities say that a storage tank does not need to be ~~emptied~~ cleaned and degassed in order to install domes and secondary roof seals, unless the tank shell is in need of reinforcement and repairs that involve welding. Further, if a storage tank is ~~emptied~~ cleaned and degassed, water is not required for this process so no increase in water demand is expected. In addition, PAR 463 does not contain any requirements that would require the use of water during construction or operation. Further, since water is not needed to implement PAR 463, no wastewater would be expected to be generated and. Since no wastewater is generated and no increase in water demand is created from the proposed project, the proposed project would not be expected to: 1) violate any water quality standards, waste discharge requirements of the applicable Regional Water Quality Control Board, or otherwise substantially degrade surface or ground water quality; 2) require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, facilities or new storm water drainage facilities; 3) substantially decrease groundwater supplies or interfere substantially with groundwater recharge or impede sustainable groundwater management of the basin; 4) conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan; 5) impact the water supply available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years; and 6) give cause for the wastewater treatment provider to question or evaluate whether adequate wastewater capacity exists in addition to the provider's existing commitments.

Conclusion
Based upon these considerations, significant adverse hydrology and water quality impacts are not expected from implementing the proposed project. Since no significant hydrology and water quality impacts were identified, no mitigation measures are necessary or required.

		Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
X.	**LAND USE AND PLANNING.** Would the project:				
a)	Physically divide an established community?	☐	☐	☐	☑
b)	Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☑

Significance Criteria

Land use and planning impacts will be considered significant if the project conflicts with the land use and zoning designations established by local jurisdictions.

Discussion

PAR 463 applies to storage tanks located at 429 facilities including refineries, bulk storage, loading, and oil production facilities. Staff estimates 20 tanks will need to be domed and 22 tanks will need secondary roof seals installed. PAR 463 is estimated to reduce VOC emissions by ~~0.43~~ 1.65 ton per day. The components of PAR 463 that would be expected to have physical effects are installing domes on EFR tanks and secondary roof seals on IFR tanks. Other components of PAR 463, such as requirements for conducting optical gas imaging tank farm inspections every other calendar week, ~~semi-annual~~ component inspections twice per year at four- to eight-month intervals and implementing recordkeeping and reporting provisions are not expected to create any secondary adverse environmental impacts.

X. a) & b) No Impact. The proposed project does not require the construction of new facilities, and the physical effects that would result from the proposed project would occur at existing facilities located in industrial areas and would occur within existing facility boundaries. For this reason, implementation of PAR 463 is not expected to physically divide an established community. Therefore, no impacts are anticipated.

Further, land use and other planning considerations are determined by local governments and the proposed project does not alter any land use or planning requirements. Compliance with the proposed project would apply to existing storage tanks operating within the boundary of existing facilities. Thus, the proposed project would not be expected to affect or conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect.

Conclusion

Based upon these considerations, significant adverse land use and planning impacts are not expected from implementing the proposed project. Since no significant land use and planning impacts were identified, no mitigation measures are necessary or required.

		Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
XI.	**MINERAL RESOURCES.** Would the project:				
a)	Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☑
b)	Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☑

Significance Criteria

Project-related impacts on mineral resources will be considered significant if any of the following conditions are met:

- The project would result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state.
- The proposed project results in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan.

Discussion

PAR 463 applies to storage tanks located at 429 facilities including refineries, bulk storage, loading, and oil production facilities. Staff estimates 20 tanks will need to be domed and 22 tanks will need secondary roof seals installed. PAR 463 is estimated to reduce VOC emissions by ~~0.43~~ 1.65 ton per day. The components of PAR 463 that would be expected to have physical effects are installing domes on EFR tanks and secondary roof seals on IFR tanks. Other components of PAR 463, such as requirements for conducting optical gas imaging tank farm inspections every other calendar week, ~~semi-annual~~ component inspections twice per year at four- to eight-month intervals and implementing recordkeeping and reporting provisions are not expected to create any secondary adverse environmental impacts.

XI. a) & b) No Impact. There are no provisions in the proposed project that would result in the loss of availability of a known mineral resource of value to the region and the residents of the state, or of a locally-important mineral resource recovery site delineated on a local general plan, specific plant or other land use plant. Some examples of mineral resources are gravel, asphalt, bauxite, and gypsum, which are commonly used for construction activities or industrial processes. Implementation of the proposed project would result in the installation of domes and secondary roof seals; all of which have no effect on the use of minerals, such as those described above. Therefore, no new demand on mineral resources is expected to occur and no significant adverse mineral resources impacts from implementing the proposed project are anticipated.

Conclusion

Based upon these considerations, significant adverse mineral resource impacts are not expected from implementing the proposed project. Since no significant mineral resource impacts were identified, no mitigation measures are necessary or required.

		Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
XII.	**NOISE.** Would the project result in:				
a)	Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☑	☐
b)	Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☑	☐
c)	For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☑

Significance Criteria

Noise impact will be considered significant if:

- Construction noise levels exceed the local noise ordinances or, if the noise threshold is currently exceeded, project noise sources increase ambient noise levels by more than three decibels (dBA) at the site boundary. Construction noise levels will be considered significant if they exceed federal Occupational Safety and Health Administration (OSHA) noise standards for workers.
- The proposed project operational noise levels exceed any of the local noise ordinances at the site boundary or, if the noise threshold is currently exceeded, project noise sources increase ambient noise levels by more than three dBA at the site boundary.

Discussion

PAR 463 applies to storage tanks located at 429 facilities including refineries, bulk storage, loading, and oil production facilities. Staff estimates 20 tanks will need to be domed and 22 tanks will need secondary roof seals installed. PAR 463 is estimated to reduce VOC emissions by ~~0.43~~ 1.65 ton per day. The components of PAR 463 that would be expected to have physical effects are installing domes on EFR tanks and secondary roof seals on IFR tanks. Other components of PAR 463, such as requirements for conducting optical gas imaging tank farm inspections every other calendar week, ~~semi-annual~~ component inspections twice per year at four- to eight-month intervals and implementing recordkeeping and reporting provisions are not expected to create any secondary adverse environmental impacts.

XII. a) & b) Less than Significant Impact. The facilities subject to PAR 463 are located in urbanized industrial areas. The existing noise environment at each of the facilities is typically dominated by noise from existing equipment on-site, vehicular traffic around the facilities, and

trucks entering and existing facility premises. Large, potentially noise-intensive construction equipment may be needed temporarily to dome EFR tanks and install secondary roof seals on IFR tanks. Operation of the construction equipment would be expected to comply with all existing noise control laws and ordinances. Since all of the facilities are located in heavy industrial areas, which have a higher background noise level when compared to other areas, the noise generated during construction would likely be indistinguishable from the background noise levels at the property line. Further, Occupational Safety and Health Administration (OSHA) and California-OSHA have established noise standards to protect worker health both indoors and outdoors. Furthermore, compliance with local noise ordinances typically limit the hours of construction to reduce the temporary noise impacts from construction to sensitive and offsite receptors. These potential noise increases would only be temporary until construction is completed and would be expected to be within the allowable noise levels established by the local noise ordinances for industrial areas; thus, impacts are expected to be less than significant.

XII. c) No Impact. As stated in Section VIII e), some facilities may be located within a two-mile radius of an airport that may require potential construction activities to install domes and secondary roof tank seals on existing storage tanks. However, these facilities are located within an existing industrial zone which are dominated by noise from existing equipment on-site, vehicular traffic around the facilities, and trucks entering and exiting facility premises. Thus, any new noise impacts from temporary construction activities would be likely to generate noise that is indistinguishable from the background levels at the property line. Thus, PAR 463 is not expected to expose persons residing or working within two miles of a public airport or private airstrip to excessive noise levels.

Conclusion

Based upon these considerations, significant adverse noise impacts are not expected from the implementing the proposed project. Since no significant noise impacts were identified, no mitigation measures are necessary or required.

		Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
XIII.	**POPULATION AND HOUSING.** Would the project:				
a)	Induce substantial growth in an area either directly (for example, by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?	☐	☐	☐	☑
b)	Displace substantial numbers of people or existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☑

Significance Criteria

Impacts of the proposed project on population and housing will be considered significant if the following criteria are exceeded:

- The demand for temporary or permanent housing exceeds the existing supply.
- The proposed project produces additional population, housing or employment inconsistent with adopted plans either in terms of overall amount or location.

Discussion

PAR 463 applies to storage tanks located at 429 facilities including refineries, bulk storage, loading, and oil production facilities. Staff estimates 20 tanks will need to be domed and 22 tanks will need secondary roof seals installed. PAR 463 is estimated to reduce VOC emissions by ~~0.43~~ 1.65 ton per day. The components of PAR 463 that would be expected to have physical effects are installing domes on EFR tanks and secondary roof seals on IFR tanks. Other components of PAR 463, such as requirements for conducting optical gas imaging tank farm inspections every other calendar week, ~~semi-annual~~ component inspections twice per year at four- to eight-month intervals and implementing recordkeeping and reporting provisions are not expected to create any secondary adverse environmental impacts.

XIII. a) No Impact. The construction activities associated with the proposed project are not expected to involve the relocation of individuals, require new housing or commercial facilities, or change the distribution of the population. Approximately 10 construction workers per facility may be needed to perform construction activities to comply with PAR 463, and these workers can be supplied from the existing labor pool in the local Southern California area. The proposed project is not expected to affect day-to-day operations. As such, PAR 463 is not anticipated to cause change in population densities, population distribution, or induce significant growth in population.

XIII. b) No Impact. The proposed project would result in construction activities that are expected to occur within the confines of existing facilities, and would not be expected to substantially alter existing operations. Consequently, PAR 463 is not expected to result in the creation of any industry that would affect population growth, directly or indirectly induce the construction of single- or multiple-family units, or require the displacement of persons or housing elsewhere within the South Coast AQMD's jurisdiction.

Conclusion

Based upon these considerations, significant adverse population and housing impacts are not expected from implementing the proposed project. Since no significant population and housing impacts were identified, no mitigation measures are necessary or required.

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
XIV. <u>PUBLIC SERVICES</u>. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the following public services:				
a) Fire protection?	☐	☐	☐	☑
b) Police protection?	☐	☐	☐	☑
c) Schools?	☐	☐	☐	☑
d) Parks?	☐	☐	☐	☑
e) Other public facilities?	☐	☐	☐	☑

Significance Criteria

Impacts on public services will be considered significant if the project results in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered government facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response time, or other performance objectives.

Discussion

PAR 463 applies to storage tanks located at 429 facilities including refineries, bulk storage, loading, and oil production facilities. Staff estimates 20 tanks will need to be domed and 22 tanks will need secondary roof seals installed. PAR 463 is estimated to reduce VOC emissions by ~~0.43~~ <u>1.65</u> ton per day. The components of PAR 463 that would be expected to have physical effects are installing domes on EFR tanks and secondary roof seals on IFR tanks. Other components of PAR 463, such as requirements for conducting optical gas imaging tank farm inspections every other calendar week, ~~semi-annual~~ component inspections <u>twice per year at four- to eight-month intervals</u> and implementing recordkeeping and reporting provisions are not expected to create any secondary adverse environmental impacts.

XIV. a) & b) No Impact. Implementation of PAR 463 would require construction activities associated with installing domes on existing EFR tanks and installing secondary roof seals on existing IFR tanks. If other repairs to the storage tanks need to be made, then these activities may require storage tanks to first be ~~emptied~~ <u>cleaned</u> and degassed, but those steps occur as part of regular tank inspection. As such, no special circumstances with handling sensitive materials during construction would be expected. For these reasons, new safety hazards are not expected to occur during construction, and implementation of PAR 463 is not expected to substantially alter or

increase the need or demand for additional public services (e.g., fire and police departments and related emergency services, etc.) above current levels. No significant impact to these existing services is anticipated.

XIV. c), d), & e) No Impact. As explained in Section XIII. a), PAR 463 is not anticipated to generate any significant effects, either direct or indirect, on the population or population distribution within South Coast AQMD's jurisdiction as no permanent additional workers are anticipated to be required for compliance. Because PAR 463 is not expected to induce substantial population growth in any way, and because the local labor pool (e.g., workforce) would remain the same since PAR 463 would not trigger changes to current usage practices, no additional schools would need to be constructed. The analysis assumes that 10 construction workers per facility may be needed but any construction activities would be temporary and be expected to be supplied from the existing labor pool in the local Southern California area. There would be no corresponding impacts to local schools or parks, and there would be no corresponding need for new or physically altered public facilities in order to maintain acceptable service ratios, response times, or other performance objectives. Therefore, no impacts would be expected to schools, parks or other public facilities.

Conclusion
Based upon these considerations, significant adverse public services impacts are not expected from implementing the proposed project. Since no significant public services impacts were identified, no mitigation measures are necessary or required.

		Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
XV.	**RECREATION.**				
a)	Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☑
b)	Does the project include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment or recreational services?	☐	☐	☐	☑

Significance Criteria

Impacts to recreation will be considered significant if:

- The project results in an increased demand for neighborhood or regional parks or other recreational facilities.
- The project adversely affects existing recreational opportunities.

Discussion

PAR 463 applies to storage tanks located at 429 facilities including refineries, bulk storage, loading, and oil production facilities. Staff estimates 20 tanks will need to be domed and 22 tanks will need secondary roof seals installed. PAR 463 is estimated to reduce VOC emissions by ~~0.43~~ 1.65 ton per day. The components of PAR 463 that would be expected to have physical effects are installing domes on EFR tanks and secondary roof seals on IFR tanks. Other components of PAR 463, such as requirements for conducting optical gas imaging tank farm inspections every other calendar week, ~~semi-annual~~ component inspections twice per year at four- to eight-month intervals and implementing recordkeeping and reporting provisions are not expected to create any secondary adverse environmental impacts.

XV. a) & b) No Impact. As previously explained in Section XIII – Population and Housing, the proposed project is not expected to affect population growth or distribution within the South Coast AQMD's jurisdiction because only about 10 construction workers per facility will be needed to dome EFR tanks, install secondary roof seals on IFR tanks, and utilize additional OGI technology for compliance with the proposed project. These required construction workers can be supplied by the existing labor pool in the local Southern California area. As such, the proposed project is not anticipated to generate any significant adverse effects, either indirectly or directly on population growth within the South Coast AQMD's jurisdiction or population distribution, and thus no additional demand for recreational facilities would be necessary or expected. No requirements in the proposed project would be expected to affect recreation in any way. Therefore, the proposed project would not increase the demand for or use of existing neighborhood and regional parks or other recreational facilities or require the construction of new or expansion of existing recreational

facilities that might have an adverse physical effect on the environment because it would not directly or indirectly increase or redistribute population.

Conclusion

Based upon these considerations, significant adverse recreation impacts are not expected from implementing the proposed project. Since no significant recreation impacts were identified, no mitigation measures are necessary or required.

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
XVI. SOLID AND HAZARDOUS WASTE. Would the project:				
a) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☐	☑
b) Comply with federal, state, and local statutes and regulations related to solid and hazardous waste?	☐	☐	☐	☑

Significance Criteria

The proposed project impacts on solid and hazardous waste will be considered significant if the following occurs:

- The generation and disposal of hazardous and non-hazardous waste exceeds the capacity of designated landfills.

Discussion

PAR 463 applies to storage tanks located at 429 facilities including refineries, bulk storage, loading, and oil production facilities. Staff estimates 20 tanks will need to be domed and 22 tanks will need secondary roof seals installed. PAR 463 is estimated to reduce VOC emissions by ~~0.43~~ 1.65 ton per day. The components of PAR 463 that would be expected to have physical effects are installing domes on EFR tanks and secondary roof seals on IFR tanks. Other components of PAR 463, such as requirements for conducting optical gas imaging tank farm inspections every other calendar week, ~~semi-annual~~ component inspections twice per year at four- to eight-month intervals and implementing recordkeeping and reporting provisions are not expected to create any secondary adverse environmental impacts.

XVI. a) & b) No Impact. While the proposed project will involve doming of EFR tanks, installation of secondary roof seals on IFR tanks, and utilization of additional OGI technology, construction will not require removal or replacement of existing equipment. Therefore, little to no solid construction waste would be generated that would need to be disposed of in a landfill, and the proposed project is not expected to impact existing permitted landfill capacity.

Current operations at facilities are assumed to comply with all applicable local, state, or federal waste disposal regulations, and PAR 463 does not contain any provisions that would weaken, alter, or interfere with current practices. Thus, implementation of the proposed project is not expected to interfere with any affected facility's ability to comply with applicable local, state, or federal waste disposal regulations in a manner that would cause a significant adverse solid and hazardous waste impact.

Conclusion

Based upon these considerations, significant adverse solid and hazardous waste impacts are not expected from implementing the proposed project. Since no significant solid and hazardous waste impacts were identified, no mitigation measures are necessary or required.

		Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
XVII.	**TRANSPORTATION.** Would the project:				
a)	Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☐	☑	☐
b)	Conflict with or be inconsistent with CEQA Guidelines Section 15064.3(b)?	☐	☐	☑	☐
c)	Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☑
d)	Result in inadequate emergency access?	☐	☐	☐	☑

Significance Criteria

Impacts on transportation will be considered significant if any of the following criteria apply:

- A major roadway is closed to all through traffic, and no alternate route is available.
- The project conflicts with applicable policies, plans or programs establishing measures of effectiveness, thereby decreasing the performance or safety of any mode of transportation or contributes to changes in overall vehicle miles traveled.
- There is an increase in vehicle miles traveled that is substantial in relation to the existing travel activity.
- Water borne, rail car or air traffic is substantially altered.
- Traffic hazards to motor vehicles, bicyclists or pedestrians are substantially increased.
- The need for more than 350 employees.
- An increase in heavy-duty transport truck traffic to and/or from the facility by more than 350 truck round trips per day.
- Increase customer traffic by more than 700 visits per day.

Discussion

PAR 463 applies to storage tanks located at 429 facilities including refineries, bulk storage, loading, and oil production facilities. Staff estimates 20 tanks will need to be domed and 22 tanks will need secondary roof seals installed. PAR 463 is estimated to reduce VOC emissions by ~~0.43~~ 1.65 ton per day. The components of PAR 463 that would be expected to have physical effects are installing domes on EFR tanks and secondary roof seals on IFR tanks. Other components of PAR 463, such as requirements for conducting optical gas imaging tank farm inspections every other calendar week, ~~semi-annual~~ component inspections twice per year at four- to eight-month intervals and implementing recordkeeping and reporting provisions are not expected to create any secondary adverse environmental impacts.

XVII. a) & b) Less than Significant Impact. As previously discussed in Section III – Air Quality and Greenhouse Gas Emissions, compliance with PAR 463 would require construction activities to dome EFR tanks, install secondary roof seals on IFR tanks, and utilize additional OGI technology. To accomplish these various activities, on-road passenger vehicles and heavy duty trucks would be dispatched to the affected facilities in order to deliver supplies and construction materials.

Table 2-5 presents the number of vehicles round trips that may occur on a peak day which involves doming five EFR tanks and installing secondary roof seals on 11 IFR tanks.

Table 2-5
Number of Round Trips in a Peak Day

Activity	Vehicle Trips
Doming 5 EFR Tanks	5 Delivery Trucks 50 Passenger Autos
Installing Secondary Roof Seals for 11 IFR Tanks	11 Delivery Trucks 110 Passenger Autos
Total in a Peak Day	**176 Vehicle Trips**

In accordance with the promulgation of SB 743 which requires analyses of transportation impacts in CEQA documents to consider a project's vehicle miles traveled (VMT) in lieu of applying a LOS metric when determining significance for transportation impacts, CEQA Guidelines Section 15064.3(b)(4) gives a lead agency to use discretion to choose the most appropriate methodology to evaluate a project's VMT, allowing the metric to be expressed as a change in absolute terms, per capita, per household, or in any other measure.

On a peak day, these construction activities are estimated to result in 16 heavy duty delivery truck round trips and 160 passenger auto round trips, the former which is less than the threshold of 350 truck round trips per day. The proposed project is not expected to result in the need of 350 new employees; assumptions, such as that installing secondary roof seals for one IFR tank requires 10 workers similar to doming an EFR tank is to overestimate impacts for a peak day. The proposed project is not expected to cause a significant adverse transportation impact. Therefore, the proposed project would not conflict with or be inconsistent with CEQA Guidelines Section 15064.3(b). Further, because implementation of the proposed project would not alter any transportation plans, the proposed project would not conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities.

XVII. c) & d) No Impact. No existing roadways would need to be modified and no new roadways would need to be constructed as a result of the proposed project. Thus, there would be no change to current public roadway designs including a geometric design feature that could increase traffic hazards. Further, the proposed project is not expected to substantially increase traffic hazards or create incompatible uses at or adjacent to the facilities. Construction-related activities are expected to be temporary and occur over a short-term. Since construction activities and associated passenger vehicle trips and delivery truck trips would cease after construction is completed, the proposed project is not expected to alter the existing long-term circulation patterns within the areas of each affected facility during construction. Thus, no long-term impacts on the traffic circulation system are expected to occur. Further, existing emergency access at the affected facilities would also not

be affected because PAR 463 does not contain any requirements specific to emergency access points and each facility would be expected to continue to maintain their existing emergency access. As a result, PAR 463 is not expected to result in inadequate emergency access.

Conclusion

Based upon these considerations, significant adverse transportation impacts are not expected from implementing the proposed project. Since no significant transportation impacts were identified, no mitigation measures are necessary or required.

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
XVIII. <u>WILDFIRE</u>. If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☑
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☐	☑
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☐	☑
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☐	☑
e) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildfires?	☐	☐	☐	☑

Significance Criteria

A project's ability to contribute to a wildfire will be considered significant if the project is located in or near state responsibility areas or lands classified as very high fire hazard severity zones, and any of the following conditions are met:

- The project would substantially impair an adopted emergency response plan or emergency evacuation plan.
- The project may exacerbate wildfire risks by exposing the project's occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire due to slope, prevailing winds, and other factors.
- The project may exacerbate wildfire risks or may result in temporary or ongoing impacts to the environment because the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) are required.
- The project would expose people or structures to significant risks such as downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes.

- The project would expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildfires.

Discussion

PAR 463 applies to storage tanks located at 429 facilities including refineries, bulk storage, loading, and oil production facilities. Staff estimates 20 tanks will need to be domed and 22 tanks will need secondary roof seals installed. PAR 463 is estimated to reduce VOC emissions by ~~0.43~~ 1.65 ton per day. The components of PAR 463 that would be expected to have physical effects are installing domes on EFR tanks and secondary roof seals on IFR tanks. Other components of PAR 463, such as requirements for conducting optical gas imaging tank farm inspections every other calendar week, ~~semi-annual~~ component inspections twice per year at four- to eight-month intervals and implementing recordkeeping and reporting provisions are not expected to create any secondary adverse environmental impacts.

XVIII. a), b), c), d) & e) No Impact. Implementation of the proposed project would neither require the construction of any new facilities nor result in the construction of any occupied buildings or structures beyond the current boundaries of each affected facility. Thus, PAR 463 is not expected to substantially impair an adopted emergency response plan or emergency evacuation plan. Further, the existing facilities which are subject to PAR 463 are located in industrial areas, and not near wildlands. In the event of a wildfire, no exacerbation of wildfire risks, and no consequential exposure of the project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire due to slope, prevailing winds, or other factors would be expected to occur. Similarly, the existing facilities which are subject to PAR 463 are located in industrial areas and no new facilities are required to be constructed. Thus, PAR 463 would neither expose people or structures to new significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes, nor would it expose people or structures, either directly or indirectly, to a new significant risk of loss, injury or death involving wildfires. Finally, because PAR 463 does not require any construction beyond existing facility boundaries, the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment are not required.

Conclusion

Based upon these considerations, significant adverse wildfire risks are not expected from implementing the proposed project. Since no significant wildfire risks were identified, no mitigation measures are necessary or required.

		Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
XIX.	**MANDATORY FINDINGS OF SIGNIFICANCE.**				
a)	Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☐	☐	☑
b)	Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)	☐	☐	☑	☐
c)	Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☑	☐

Discussion

PAR 463 applies to storage tanks located at 429 facilities including refineries, bulk storage, loading, and oil production facilities. Staff estimates 20 tanks will need to be domed and 22 tanks will need secondary roof seals installed. PAR 463 is estimated to reduce VOC emissions by ~~0.43~~ 1.65 ton per day. The components of PAR 463 that would be expected to have physical effects are installing domes on EFR tanks and secondary roof seals on IFR tanks. Other components of PAR 463, such as requirements for conducting optical gas imaging tank farm inspections every other calendar week, ~~semi-annual~~ component inspections twice per year at four- to eight-month intervals and implementing recordkeeping and reporting provisions are not expected to create any secondary adverse environmental impacts.

XIX. a) No Impact. As explained in Section IV - Biological Resources, PAR 463 is not expected to significantly adversely affect plant or animal species, or the habitat on which they rely because any construction and operational activities are expected to occur entirely within the boundaries of

existing developed facilities in areas that have been greatly disturbed and that currently do not support any species of concern or the habitat on which they rely. For these reasons, PAR 463 is not expected to reduce or eliminate any plant or animal species or destroy prehistoric records of the past.

XIX. b) Less Than Significant Impact. Based on the preceding analyses, PAR 463 would not result in significant adverse project-specific environmental impacts. Potential adverse impacts from implementing PAR 463 would not be "cumulatively considerable" as defined by CEQA Guidelines Section 15064(h)(1) for any environmental topic because there are no, or only minor incremental project-specific impacts that were concluded to be less than significant. Per CEQA Guidelines Section 15064(h)(4), the mere existence of significant cumulative impacts caused by other projects alone shall not constitute substantial evidence that the proposed project's incremental effects are cumulative considerable. South Coast AQMD cumulative significant thresholds are the same as project-specific significance thresholds.

Therefore, there is no potential for significant adverse cumulative or cumulatively considerable impacts to be generated by PAR 463 for any environmental topic area.

XIX. c) Less Than Significant Impact. Based on the preceding analyses, PAR 463 is not expected to cause adverse effects on human beings for any environmental topic, either directly or indirectly because: 1) aesthetics impacts were determined to be less than significant as analyzed in Section I – Aesthetics; 2) the air quality and GHG impacts were determined to be less than the significance thresholds as analyzed in Section III – Air Quality and Greenhouse Gases; 3) energy impacts were determined to be less than significant as analyzed in Section VI – Energy; 4) the noise impacts were determined to be less than significant as analyzed in Section XII – Noise; and 5) transportation impacts were determined to be less than the significant as analyzed in Section XVII – Transportation. In addition, the analysis concluded that there would be no significant environmental impacts for the following remaining environmental impact topic areas: agriculture and forestry resources, biological resources, cultural and tribal cultural resources, geology and soils, hazards and hazardous materials, hydrology and water quality, land use and planning, mineral resources, population and housing, public services, recreation, solid and hazardous waste, transportation, and wildfire.

Conclusion

As previously discussed in environmental topics I through XIX, the proposed project has no potential to cause significant adverse environmental effects. Since no significance adverse environmental impacts were identified, no mitigation measures are necessary or required.

APPENDICES

Appendix A: Proposed Amended Rule 463 – Organic Liquid Storage

Appendix B: Modeling Files, Assumptions, and Calculations

APPENDIX A

Proposed Amended Rule 463 – Organic Liquid Storage

In order to save space and avoid repetition, please refer to the latest version of PAR 463 located elsewhere in the Governing Board Agenda for the public hearing scheduled on June 7, 2024. The version of PAR 463 that was circulated with the Draft EA for a 30-day public review and comment period from March 27, 2024 to April 26, 2024 was identified as the "Preliminary Draft Rule PAR 463, revision date March 22, 2024," which is available from the South Coast AQMD's website at: https://www.aqmd.gov/docs/default-source/rule-book/Proposed-Rules/rule-463/par-463-preliminary-draft-rule-language.pdf. An original hard copy of the Draft EA, which included the draft version of PAR 463 listed above, can be obtained through the South Coast AQMD Public Information Center by phone at (909) 396-2001 or by email at PICrequests@aqmd.gov.

APPENDIX B

Modeling Files, Assumptions, and Calculations

Peak Daily Construction Impacts by Construction Activity and Season (lb/day for Criteria Pollutants, MT/yr for GHG)

Doming 1 External Floating Roof Tank

	VOC	NOx	CO	SO_2	PM10T	PM2.5T	CO_2e
Winter	1.37	10.90	13.40	0.03	0.67	0.40	
Summer	1.37	10.90	13.20	0.03	0.67	0.40	
Max	1.37	10.90	13.40	0.03	0.67	0.40	118

Installing Additional Roof Seals for 1 Internal Floating Roof Tank

	VOC	NOx	CO	SO_2	PM10T	PM2.5T	CO_2e
Winter	0.51	3.95	5.32	0.01	0.45	0.19	24
Summer	0.52	3.93	5.55	0.01	0.45	0.19	26
Max	0.52	3.95	5.55	0.01	0.45	0.19	26

Doming 5 External Floating Roof Tanks and Installing Additional Roof Seals for 11 Internal Floating Roof Tanks

	VOC	NOx	CO	SO_2	PM10T	PM2.5T
Max	12.57	97.95	128.05	0.26	8.30	4.09

Doming 20 External Floating Roof Tanks and Installing Additional Roof Seals for 22 Internal Floating Roof Tanks

CO_2e
97

PAR 463-Dome Detailed Report

Table of Contents

5. Activity Data

5.1. Construction Schedule

5.2. Off-Road Equipment

5.2.1. Unmitigated

5.3. Construction Vehicles

5.3.1. Unmitigated

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

5.5. Architectural Coatings

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

5.6.2. Construction Earthmoving Control Strategies

5.7. Construction Paving

5.8. Construction Electricity Consumption and Emissions Factors

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	PAR 463-Dome
Construction Start Date	2/6/2025
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	3.50
Precipitation (days)	16.0
Location	33.78242008132466, -118.2666105636882
County	Los Angeles-South Coast
City	Los Angeles
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	4641
EDFZ	16
Electric Utility	Los Angeles Department of Water & Power
Gas Utility	Southern California Gas
App Version	2022.1.1.21

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
General Heavy Industry	36.0	1000sqft	0.83	36,000	0.00	0.00	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.65	1.37	10.9	13.4	0.03	0.35	0.32	0.67	0.32	0.08	0.40	—	2,683	2,683	0.11	0.05	1.40	2,702
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.65	1.37	10.9	13.2	0.03	0.35	0.32	0.67	0.32	0.08	0.40	—	2,668	2,668	0.11	0.05	0.04	2,685
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.44	0.36	2.90	3.51	0.01	0.09	0.09	0.18	0.09	0.02	0.11	—	710	710	0.03	0.01	0.16	715
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.08	0.07	0.53	0.64	< 0.005	0.02	0.02	0.03	0.02	< 0.005	0.02	—	118	118	< 0.005	< 0.005	0.03	118

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

2026	1.65	1.37	10.9	13.4	0.03	0.35	0.32	0.67	0.32	0.08	0.40	—	2,683	2,683	0.11	0.05	1.40	2,702
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	1.65	1.37	10.9	13.2	0.03	0.35	0.32	0.67	0.32	0.08	0.40	—	2,668	2,668	0.11	0.05	0.04	2,685
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.44	0.36	2.90	3.51	0.01	0.09	0.09	0.18	0.09	0.02	0.11	—	710	710	0.03	0.01	0.16	715
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.08	0.07	0.53	0.64	< 0.005	0.02	0.02	0.03	0.02	< 0.005	0.02	—	118	118	< 0.005	< 0.005	0.03	118

3. Construction Emissions Details

3.1. Building Construction (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.59	1.32	10.7	12.0	0.02	0.35	—	0.35	0.32	—	0.32	—	2,243	2,243	0.09	0.02	—	2,251
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.59	1.32	10.7	12.0	0.02	0.35	—	0.35	0.32	—	0.32	—	2,243	2,243	0.09	0.02	—	2,251
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.42	0.35	2.84	3.19	0.01	0.09	—	0.09	0.09	—	0.09	—	596	596	0.02	< 0.005	—	598
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.06	0.52	0.58	< 0.005	0.02	—	0.02	0.02	—	0.02	—	98.7	98.7	< 0.005	< 0.005	—	99.0
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.08	1.31	0.00	0.00	0.28	0.28	0.00	0.07	0.07	—	291	291	0.01	0.01	0.99	295
Vendor	0.01	< 0.005	0.13	0.05	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	149	149	< 0.005	0.02	0.41	156
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.09	1.09	0.00	0.00	0.28	0.28	0.00	0.07	0.07	—	276	276	0.01	0.01	0.03	279
Vendor	0.01	< 0.005	0.14	0.05	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	149	149	< 0.005	0.02	0.01	155
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.03	0.31	0.00	0.00	0.07	0.07	0.00	0.02	0.02	—	74.4	74.4	< 0.005	< 0.005	0.11	75.3
Vendor	< 0.005	< 0.005	0.04	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	39.5	39.5	< 0.005	0.01	0.05	41.3
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.06	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	12.3	12.3	< 0.005	< 0.005	0.02	12.5

Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	6.55	6.55	< 0.005	< 0.005	0.01	6.84
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Building Construction	Building Construction	1/1/2026	4/23/2026	6.00	97.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Building Construction	Cranes	Diesel	Average	1.00	10.0	367	0.29
Building Construction	Air Compressors	Diesel	Average	1.00	10.0	84.0	0.37
Building Construction	Welders	Diesel	Average	3.00	10.0	82.0	0.20

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Building Construction	—	—	—	—
Building Construction	Worker	10.0	40.0	LDA,LDT1,LDT2
Building Construction	Vendor	1.00	50.0	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)

5.6.2. Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
General Heavy Industry	0.00	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2026	0.00	690	0.05	0.01

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	5.07	annual days of extreme heat
Extreme Precipitation	4.20	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	0.00	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	1	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	0	0	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	1	1	1	2
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	1	1	2
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	1	1	1	2

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	17.6

AQ-PM	67.2
AQ-DPM	99.3
Drinking Water	42.4
Lead Risk Housing	91.8
Pesticides	0.00
Toxic Releases	97.1
Traffic	23.6
Effect Indicators	—
CleanUp Sites	71.7
Groundwater	76.2
Haz Waste Facilities/Generators	62.6
Impaired Water Bodies	0.00
Solid Waste	52.9
Sensitive Population	—
Asthma	83.0
Cardio-vascular	92.8
Low Birth Weights	72.9
Socioeconomic Factor Indicators	—
Education	99.6
Housing	58.2
Linguistic	97.3
Poverty	97.4
Unemployment	91.3

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract

Economic	—
Above Poverty	3.734120364
Employed	20.67239831
Median HI	8.109842166
Education	—
Bachelor's or higher	1.706659823
High school enrollment	20.74939048
Preschool enrollment	24.62466316
Transportation	—
Auto Access	9.085076351
Active commuting	86.1157449
Social	—
2-parent households	52.29051713
Voting	11.8311305
Neighborhood	—
Alcohol availability	4.516874118
Park access	81.35506224
Retail density	53.26575132
Supermarket access	94.25125112
Tree canopy	9.559861414
Housing	—
Homeownership	5.427948159
Housing habitability	2.361093289
Low-inc homeowner severe housing cost burden	14.65417683
Low-inc renter severe housing cost burden	73.7071731
Uncrowded housing	0.192480431
Health Outcomes	—

Insured adults	3.002694726
Arthritis	74.6
Asthma ER Admissions	21.3
High Blood Pressure	64.8
Cancer (excluding skin)	96.9
Asthma	13.4
Coronary Heart Disease	40.3
Chronic Obstructive Pulmonary Disease	22.0
Diagnosed Diabetes	11.9
Life Expectancy at Birth	10.9
Cognitively Disabled	46.5
Physically Disabled	63.7
Heart Attack ER Admissions	21.1
Mental Health Not Good	2.6
Chronic Kidney Disease	20.1
Obesity	3.6
Pedestrian Injuries	98.5
Physical Health Not Good	2.9
Stroke	29.9
Health Risk Behaviors	—
Binge Drinking	69.8
Current Smoker	4.4
No Leisure Time for Physical Activity	4.2
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	3.5

Elderly	97.8
English Speaking	3.7
Foreign-born	92.7
Outdoor Workers	6.3
Climate Change Adaptive Capacity	—
Impervious Surface Cover	3.2
Traffic Density	49.8
Traffic Access	87.4
Other Indices	—
Hardship	99.2
Other Decision Support	—
2016 Voting	0.9

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	95.0
Healthy Places Index Score for Project Location (b)	6.00
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	Yes
Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	Wilmington Long Beach Carson

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Construction: Construction Phases	PAR 1178 was used as a referenced.
Construction: Off-Road Equipment	The hours of operation was revised from 6 to 8 for worst case scenario.
Construction: Trips and VMT	Referenced Final EA or PAR 1178.

PAR 463-Seals-Summer Detailed Report

Table of Contents

5. Activity Data

5.1. Construction Schedule

5.2. Off-Road Equipment

5.2.1. Unmitigated

5.3. Construction Vehicles

5.3.1. Unmitigated

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

5.5. Architectural Coatings

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

5.6.2. Construction Earthmoving Control Strategies

5.7. Construction Paving

5.8. Construction Electricity Consumption and Emissions Factors

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	PAR 463-Seals-Summer
Construction Start Date	6/1/2026
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	3.50
Precipitation (days)	16.0
Location	33.782633950840065, -118.26814130827408
County	Los Angeles-South Coast
City	Los Angeles
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	4640
EDFZ	16
Electric Utility	Los Angeles Department of Water & Power
Gas Utility	Southern California Gas
App Version	2022.1.1.21

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
General Heavy Industry	36.0	1000sqft	0.83	36,000	0.00	0.00	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.62	0.52	3.93	5.55	0.01	0.13	0.32	0.45	0.12	0.08	0.19	—	1,246	1,246	0.05	0.04	1.40	1,260
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.08	0.06	0.49	0.66	< 0.005	0.02	0.04	0.06	0.01	0.01	0.02	—	152	152	0.01	< 0.005	0.07	154
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.01	0.01	0.09	0.12	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	25.2	25.2	< 0.005	< 0.005	0.01	25.5

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.62	0.52	3.93	5.55	0.01	0.13	0.32	0.45	0.12	0.08	0.19	—	1,246	1,246	0.05	0.04	1.40	1,260
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.08	0.06	0.49	0.66	< 0.005	0.02	0.04	0.06	0.01	0.01	0.02	—	152	152	0.01	< 0.005	0.07	154
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.01	0.01	0.09	0.12	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	25.2	25.2	< 0.005	< 0.005	0.01	25.5

3. Construction Emissions Details

3.1. Building Construction (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.56	0.47	3.72	4.18	0.01	0.12	—	0.12	0.11	—	0.11	—	807	807	0.03	0.01	—	809
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07	0.06	0.46	0.52	< 0.005	0.02	—	0.02	0.01	—	0.01	—	99.4	99.4	< 0.005	< 0.005	—	99.8
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.08	0.09	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	16.5	16.5	< 0.005	< 0.005	—	16.5

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.08	1.31	0.00	0.00	0.28	0.28	0.00	0.07	0.07	—	291	291	0.01	0.01	0.99	295
Vendor	0.01	< 0.005	0.13	0.05	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	149	149	< 0.005	0.02	0.41	156
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.14	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	34.5	34.5	< 0.005	< 0.005	0.05	34.9
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	18.3	18.3	< 0.005	< 0.005	0.02	19.2
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	5.71	5.71	< 0.005	< 0.005	0.01	5.78
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	3.04	3.04	< 0.005	< 0.005	< 0.005	3.17
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Building Construction	Building Construction	6/1/2026	8/1/2026	5.00	45.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Building Construction	Cranes	Diesel	Average	1.00	4.00	367	0.29
Building Construction	Air Compressors	Diesel	Average	1.00	8.00	84.0	0.37

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Building Construction	—	—	—	—
Building Construction	Worker	10.0	40.0	LDA,LDT1,LDT2
Building Construction	Vendor	1.00	50.0	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)

5.6.2. Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
General Heavy Industry	0.00	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2026	0.00	690	0.05	0.01

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	5.07	annual days of extreme heat
Extreme Precipitation	4.20	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	0.00	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	1	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	0	0	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	1	1	1	2
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	1	1	2
Wildfire	1	1	1	2

Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	1	1	1	2

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	20.8
AQ-PM	67.2
AQ-DPM	59.7
Drinking Water	42.4
Lead Risk Housing	94.8
Pesticides	44.1
Toxic Releases	98.0
Traffic	32.5
Effect Indicators	—
CleanUp Sites	28.7
Groundwater	79.1

Haz Waste Facilities/Generators	43.7
Impaired Water Bodies	0.00
Solid Waste	37.6
Sensitive Population	—
Asthma	83.0
Cardio-vascular	92.8
Low Birth Weights	35.6
Socioeconomic Factor Indicators	—
Education	88.7
Housing	64.5
Linguistic	80.2
Poverty	71.7
Unemployment	74.1

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	28.7052483
Employed	80.73912486
Median HI	28.56409598
Education	—
Bachelor's or higher	11.58732196
High school enrollment	100
Preschool enrollment	70.15270114
Transportation	—
Auto Access	15.9373797

Active commuting	71.46156807
Social	—
2-parent households	29.78313871
Voting	18.19581676
Neighborhood	—
Alcohol availability	4.516874118
Park access	81.35506224
Retail density	92.85255999
Supermarket access	94.25125112
Tree canopy	32.76016938
Housing	—
Homeownership	26.45964327
Housing habitability	13.98691133
Low-inc homeowner severe housing cost burden	62.17117926
Low-inc renter severe housing cost burden	30.28358784
Uncrowded housing	5.889901193
Health Outcomes	—
Insured adults	9.008084178
Arthritis	88.1
Asthma ER Admissions	21.3
High Blood Pressure	81.4
Cancer (excluding skin)	93.3
Asthma	55.1
Coronary Heart Disease	69.4
Chronic Obstructive Pulmonary Disease	74.0
Diagnosed Diabetes	29.7
Life Expectancy at Birth	13.0

Cognitively Disabled	70.6
Physically Disabled	57.4
Heart Attack ER Admissions	21.1
Mental Health Not Good	27.8
Chronic Kidney Disease	35.4
Obesity	19.4
Pedestrian Injuries	94.5
Physical Health Not Good	27.0
Stroke	70.4
Health Risk Behaviors	—
Binge Drinking	32.5
Current Smoker	39.2
No Leisure Time for Physical Activity	26.6
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	15.5
Elderly	91.2
English Speaking	12.1
Foreign-born	75.5
Outdoor Workers	37.1
Climate Change Adaptive Capacity	—
Impervious Surface Cover	11.6
Traffic Density	71.5
Traffic Access	87.4
Other Indices	—
Hardship	81.2

Other Decision Support	—
2016 Voting	11.4

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	85.0
Healthy Places Index Score for Project Location (b)	34.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	Yes
Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	Wilmington Long Beach Carson

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Construction: Construction Phases	Referenced Final EA for PAR 1178.
Construction: Off-Road Equipment	Reference Final EA for PAR 1178.
Construction: Trips and VMT	Reference Final EA for PAR 1178.

PAR 463- Seals-Winter Detailed Report

Table of Contents

5. Activity Data

5.1. Construction Schedule

5.2. Off-Road Equipment

5.2.1. Unmitigated

5.3. Construction Vehicles

5.3.1. Unmitigated

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

5.5. Architectural Coatings

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

5.6.2. Construction Earthmoving Control Strategies

5.7. Construction Paving

5.8. Construction Electricity Consumption and Emissions Factors

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	PAR 463- Seals-Winter
Construction Start Date	1/1/2026
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	3.50
Precipitation (days)	16.0
Location	33.782633950840065, -118.26814130827408
County	Los Angeles-South Coast
City	Los Angeles
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	4640
EDFZ	16
Electric Utility	Los Angeles Department of Water & Power
Gas Utility	Southern California Gas
App Version	2022.1.1.21

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
General Heavy Industry	36.0	1000sqft	0.83	36,000	0.00	0.00	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.62	0.51	3.95	5.32	0.01	0.13	0.32	0.45	0.12	0.08	0.19	—	1,231	1,231	0.05	0.04	0.04	1,243
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.07	0.06	0.46	0.62	< 0.005	0.01	0.04	0.05	0.01	0.01	0.02	—	142	142	0.01	< 0.005	0.07	144
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.01	0.01	0.08	0.11	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	23.5	23.5	< 0.005	< 0.005	0.01	23.8

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.62	0.51	3.95	5.32	0.01	0.13	0.32	0.45	0.12	0.08	0.19	—	1,231	1,231	0.05	0.04	0.04	1,243

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.07	0.06	0.46	0.62	< 0.005	0.01	0.04	0.05	0.01	0.01	0.02	—	142	142	0.01	< 0.005	0.07	144
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.01	0.01	0.08	0.11	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	23.5	23.5	< 0.005	< 0.005	0.01	23.8

3. Construction Emissions Details

3.1. Building Construction (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.56	0.47	3.72	4.18	0.01	0.12	—	0.12	0.11	—	0.11	—	807	807	0.03	0.01	—	809
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.05	0.43	0.48	< 0.005	0.01	—	0.01	0.01	—	0.01	—	92.8	92.8	< 0.005	< 0.005	—	93.1
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.08	0.09	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	15.4	15.4	< 0.005	< 0.005	—	15.4

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.09	1.09	0.00	0.00	0.28	0.28	0.00	0.07	0.07	—	276	276	0.01	0.01	0.03	279
Vendor	0.01	< 0.005	0.14	0.05	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	149	149	< 0.005	0.02	0.01	155
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.13	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	32.2	32.2	< 0.005	< 0.005	0.05	32.6
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	—	17.1	17.1	< 0.005	< 0.005	0.02	17.9
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	5.33	5.33	< 0.005	< 0.005	0.01	5.40
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	2.83	2.83	< 0.005	< 0.005	< 0.005	2.96
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Building Construction	Building Construction	1/1/2026	3/1/2026	5.00	42.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Building Construction	Cranes	Diesel	Average	1.00	4.00	367	0.29
Building Construction	Air Compressors	Diesel	Average	1.00	8.00	84.0	0.37

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Building Construction	—	—	—	—
Building Construction	Worker	10.0	40.0	LDA,LDT1,LDT2
Building Construction	Vendor	1.00	50.0	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)

5.6.2. Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
General Heavy Industry	0.00	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2026	0.00	690	0.05	0.01

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	5.07	annual days of extreme heat
Extreme Precipitation	4.20	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	0.00	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	1	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	0	0	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	1	1	1	2
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	1	1	2
Wildfire	1	1	1	2

Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	1	1	1	2

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	20.8
AQ-PM	67.2
AQ-DPM	59.7
Drinking Water	42.4
Lead Risk Housing	94.8
Pesticides	44.1
Toxic Releases	98.0
Traffic	32.5
Effect Indicators	—
CleanUp Sites	28.7
Groundwater	79.1

Haz Waste Facilities/Generators	43.7
Impaired Water Bodies	0.00
Solid Waste	37.6
Sensitive Population	—
Asthma	83.0
Cardio-vascular	92.8
Low Birth Weights	35.6
Socioeconomic Factor Indicators	—
Education	88.7
Housing	64.5
Linguistic	80.2
Poverty	71.7
Unemployment	74.1

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	28.7052483
Employed	80.73912486
Median HI	28.56409598
Education	—
Bachelor's or higher	11.58732196
High school enrollment	100
Preschool enrollment	70.15270114
Transportation	—
Auto Access	15.9373797

Active commuting	71.46156807
Social	—
2-parent households	29.78313871
Voting	18.19581676
Neighborhood	—
Alcohol availability	4.516874118
Park access	81.35506224
Retail density	92.85255999
Supermarket access	94.25125112
Tree canopy	32.76016938
Housing	—
Homeownership	26.45964327
Housing habitability	13.98691133
Low-inc homeowner severe housing cost burden	62.17117926
Low-inc renter severe housing cost burden	30.28358784
Uncrowded housing	5.889901193
Health Outcomes	—
Insured adults	9.008084178
Arthritis	88.1
Asthma ER Admissions	21.3
High Blood Pressure	81.4
Cancer (excluding skin)	93.3
Asthma	55.1
Coronary Heart Disease	69.4
Chronic Obstructive Pulmonary Disease	74.0
Diagnosed Diabetes	29.7
Life Expectancy at Birth	13.0

Cognitively Disabled	70.6
Physically Disabled	57.4
Heart Attack ER Admissions	21.1
Mental Health Not Good	27.8
Chronic Kidney Disease	35.4
Obesity	19.4
Pedestrian Injuries	94.5
Physical Health Not Good	27.0
Stroke	70.4
Health Risk Behaviors	—
Binge Drinking	32.5
Current Smoker	39.2
No Leisure Time for Physical Activity	26.6
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	15.5
Elderly	91.2
English Speaking	12.1
Foreign-born	75.5
Outdoor Workers	37.1
Climate Change Adaptive Capacity	—
Impervious Surface Cover	11.6
Traffic Density	71.5
Traffic Access	87.4
Other Indices	—
Hardship	81.2

Other Decision Support	—
2016 Voting	11.4

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	85.0
Healthy Places Index Score for Project Location (b)	34.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	Yes
Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	Wilmington Long Beach Carson

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Construction: Construction Phases	Referenced Final EA for PAR 1178.
Construction: Off-Road Equipment	Reference Final EA for PAR 1178.
Construction: Trips and VMT	Referenced Final EA for PAR 1178.

On-Road Vehicles, VMT + Fuel Usage (As Published in the Draft EA)

Activity	Description	Trip Distance (miles)	Number Trips/yr	VMT	Fuel Type	MPG	Fuel Use (Gal/yr)
Doming 20 External Floating Roof Tanks	Equipment Delivery - Heavy-Heavy Duty Vendor Trucks	50	1940	97000	Diesel	6.4	15,226
	Equipment Installation - Passenger Auto	40	1940	77600	Gas	27.0	2,871
Installing Additional Seals for 22 Internal Flaoting Roof Tanks	Equipment Delivery - Heavy-Heavy Duty Vendor Trucks	50	924	46200	Diesel	6.4	7,252
	Equipment Installation - Passenger Auto	40	924	36960	Gas	27.0	1,367

Fuel Usage = VMT / MPG

Offroad Equipment Fuel Usage

Activity	Equipment	Number of Equipment	Usage Hours/day	Horse power	Load Factor	Fuel Rate (Gal/hr)	Fuel Use (Gal/day)
Doming 20 External Floating Roof Tanks	Cranes	20	10	367	0.29	3.4	199.7
	Welders	60	10	82	0.2	1.5	174.7
	Air Compressors	20	10	84	0.37	1.1	82.1
Installing Additional Seals for 22 Internal Flaoting Roof Tanks	Cranes	22	4	367	0.29	3.4	87.9
	Air Compressors	22	8	84	0.37	1.1	72.2
Total Diesel Fuel Usage from Offroad Equipment (Gal/yr)							50996.2

Fuel Usage = Hours/day * Days * Load Factor * Fuel Rate

Notes: Horsepower and Load Factor from CalEEMod version 2022.1.1.3

Fuel Type	Construction
Diesel Fuel Usage (Gallons)	73,474
Gas Fuel Usage (Gallons)	4,238

Annual Total Projected Fuel Usage for Construction Activities		
	Diesel	**Gasoline**
Projected Operational Energy Use (gal/yr)[a]	73,474	4,238
Year 2017 South Coast AQMD Jurisdiction Estimated Fuel Demand (gal/yr)	775,000,000	7,086,000,000
Total Increase Above Baseline	0.00948%	0.000060%
Significance Threshold	1%	1%
Significant?	**No**	**No**

Notes:

[a] Estimated peak fuel usage from construction activities. Diesel usage estimates are based on the vendor trips and offroad equipment. Gasoline usage estimates are derived from worker trips.