SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

Preliminary Draft Staff Report

Proposed Amended Rule 463 – Organic Liquid Storage

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EXECUTIVE SUMMARY

Rule 463 applies to above-ground stationary tanks with capacity of 75,000 liters (19,815 gallons) or more, above-ground tanks with a capacity between 950 liters (251 gallons) and 75,000 liters (19,815 gallons) that are used to store gasoline, and any stationary tank with a potential for volatile organic compound (VOC) emissions of six tons per year or greater used in crude oil and natural gas production operations. Rule 463 requires tanks that meet the capacity and vapor pressure requirements to install controls based on tank type. The most recent amendment of Rule 463 in June 2024 established more stringent leak detection and control requirements, including periodic optical gas imaging (OGI) inspections, more stringent control requirements, and contingency measures to address Clean Air Act requirements.

After the June 2024 amendment was adopted, rule development was initiated to clarify the tank types subject to OGI inspections and to ensure smaller above-ground gasoline storage tanks have a pathway to comply with the rule. Staff considers smaller gasoline tanks as those above-ground gasoline storage tanks with a capacity between 950 liters (251 gallons) and 75,000 liters (19,815 gallons). Staff noted that the June 2024 amendment to Rule 463 did not evaluate smaller gasoline tanks, nor were any emission reductions assumed from smaller gasoline tanks.

As part of this rule development effort, a cost-effectiveness analysis was conducted for OGI inspections of smaller gasoline dispensing tanks, and it was found to not be cost-effective. PAR 463 clarifies that OGI inspections are not required for smaller above-ground gasoline storage tanks, but all larger tanks meeting the capacity and vapor pressure thresholds are subject to OGI inspection requirements. While most of the smaller above-ground gasoline storage tanks are required to be California Air Resources Board (CARB) certified, it was not clear that those tanks would also be able to comply with existing vapor control requirements in Rule 463. PAR 463 provides the additional compliance option for smaller above-ground gasoline storage tank operators to comply with performance requirements through a vapor recovery system compliant with Rule 461 – Gasoline Transfer and Dispensing (Rule 461).

PAR 463 applies to approximately 2,400 tanks located at 1,300 facilities including refineries, bulk storage, loading, oil production, and gasoline storage and dispensing facilities. Out of the affected facilities, there are approximately 800 above-ground gasoline storage tanks used for gasoline dispensing at approximately 800 facilities.

PAR 463 is developing through a public process. A Public Workshop for PAR 463 will be held on October 21, 2025.

CHAPTER 1: BACKGROUND

INTRODUCTION

Rule 463 limits VOC emissions from storage tanks containing volatile organic liquids as depicted in Figure 1-1. This rule applies to any above-ground stationary tank with a capacity of 75,000 liters (19,815 gallons) or greater used for storage of organic liquids and any above-ground tank with a capacity between 950 liters (251 gallons) and 75,000 liters (19,815 gallons) used for storage of gasoline. Rule 463 also applies to stationary tanks with a potential for VOC emissions of six tons per year or greater used in crude oil and natural gas production operations.

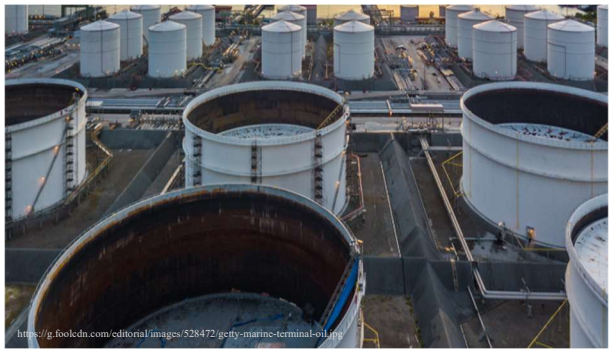

Figure 1-1- Example of Storage Tanks Subject to Rule 463

Rule 463 specifies different control requirements based on storage tank type. Control requirements include specifications for tank roofs, seals, emission control systems, and covers for roof openings. Inspection and monitoring requirements are specific to the type of tank. Proposed Amended Rule 463 (PAR 463) clarifies the tank types subject to OGI inspections and vapor control requirements for smaller above-ground gasoline storage tanks.

BACKGROUND

AB 617 was signed into state law in 2017 and required the development of Community Emission Reduction Plans (CERPs) to reduce toxic air contaminants and criteria pollutants in environmental justice communities. Local air districts, including South Coast Air Quality Management District, were tasked with developing and implementing CERPs and community air monitoring plans in partnership with residents and community stakeholders. Rule development for Rule 463 was not identified as a course of action for CERPs; however, Rule 463 regulates emission sources similar to Rule 1178, including oil and gas facilities, within the affected AB 617 communities.

The most recent amendment to Rule 463 was adopted in June 2024, which implemented more stringent leak detection and control requirements. The amendment established requirements for doming exterior floating roof tanks and installing secondary seals on internal floating root tanks, as well as more stringent requirements for emission control systems and seal gaps. Furthermore, the amendment established requirements for periodic OGI inspections and contingency measures.

After the June 2024 amendment was adopted, it was brought to staff's attention that certain clarifications appeared to be needed for Rule 463, including: 1) the tank types subject to OGI inspections; and 2) the vapor control requirements for above-ground gasoline dispensing tanks.

Staff considers smaller gasoline tanks as those with a capacity between 950 liters (251 gallons) and 75,000 liters (19,815 gallons). The vapor control compliance options of Rule 463 in paragraph (e)(1), were noted to be incompatible with requirements for CARB certified above-ground gasoline tanks. The compliance options include: 1) A pressure-vacuum valve which is set to within 10

percent of the maximum allowable working pressure of the container; and 2) A vapor loss control device which complies with the requirements set forth in subdivision (d). Subparagraph (d)(3)(C) specifies the test method for the current control efficiency requirement of at least 98 percent by weight for a vapor recovery system, which is different from the CARB certification method for gasoline transfer/dispensing tanks. In addition, above-ground storage tanks at gasoline dispensing facilities might not be able to meet both CARB's standing loss control pressure range and the Rule 463 pressure setting compliance option. Therefore, an additional compliance option for demonstrating vapor control performance is needed for smaller gasoline tanks.

The affected facility and equipment permit query conducted for the June 2024 amendment of Rule 463 did not identify above-ground gasoline dispensing tanks as part of the Rule 463 equipment universe. Therefore, gasoline storage tanks used for gasoline dispensing were not included in the best available retrofit control technology (BARCT) assessment for OGI inspections or discussed or identified to provide a basis for new emission reductions. Furthermore, none of the smaller gasoline tanks were included in the sample used for the BARCT assessment during the June 2024 amendment to Rule 463.

As part of this rule development, staff conducted a cost-effectiveness analysis to potentially require OGI inspections of the aforementioned tanks. A random sample of 86 tanks was selected to support a 95% confidence interval, based on inspection frequencies of daily, every other day, weekly, biweekly, monthly, and bimonthly. The evaluation compared two options: (1) conducting inspections internally using trained staff with a purchased camera; and (2) outsourcing inspections to third-party contracted personnel. All gasoline dispensing tanks in the sample had capacities between 950 liters (251 gallons) and 75,000 liters (19,815 gallons). The cost-effectiveness analysis to require OGI inspections for smaller gasoline tanks utilized the same emission reduction methodology and cost assumptions, adjusted for inflation of 4%, as the June 2024 amendment to Rule 463. See the Final Staff Report for the 2024 amendment to Rule 463 for more details.

The analysis indicates that it is not cost-effective to conduct OGI inspections of smaller gasoline tanks through owning an OGI camera or by utilizing a third-party service. In the 2022 AQMP, a cost-effectiveness threshold of $36,000 per ton of VOC reduced was established. After adjusting for inflation, the cost-effectiveness threshold is $41,400 per ton of VOC reduced (2024 U.S. Dollars). The best option was to contract a third-party service provider to perform monthly OGI inspections. The cost-effectiveness was determined to be approximately $8,500,000 per ton of VOC reduced. The cost-effectiveness to require OGI inspections for smaller gasoline tanks every two weeks is approximately $13,700,000 per ton of VOC reduced. Therefore, PAR 463 is updated to clearly exclude OGI inspection requirements for smaller gasoline tanks; existing design and control requirements for fugitive emissions from these tanks will continue to apply.

REGULATORY HISTORY

Rule 463 was adopted in August 1977 and subsequently amended seven 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 CARB. The November 2011 amendment harmonized test methods and leak standards with Rule 1178. The May 2023 amendment 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. The most recent amendment to Rule 463 in June 2024 established more stringent control requirements, incorporated requirements for periodic OGI inspections, and established contingency measures to fulfill ozone attainment plan requirements.

AFFECTED FACILITIES AND EQUIPMENT

PAR 463 applies to approximately 2,400 tanks located at 1,300 facilities including refineries, bulk storage, loading, oil production, and gasoline storage and dispensing facilities. Out of the affected facilities, there are approximately 800 above-ground gasoline storage tanks used for gasoline dispensing at approximately 800 facilities.

PUBLIC PROCESS

The development of PAR 463 is being conducted through a public process. A Public Workshop will be held on October 21, 2025. The purpose of the Public Workshop is to present the proposed amended rule language to the general public and stakeholders and to solicit comments.

CHAPTER 2: PROPOSED AMENDED RULE 463

INTRODUCTION

PAR 463 clarifies the tank types subject to OGI inspections and control requirements for smaller gasoline tanks.

The following information describes the structure of PAR 463. Any modifications to provisions that have been incorporated are explained. PAR 463 also includes editorial changes for clarity.

PROPOSED AMENDED RULE STRUCTURE

PAR 463 contains 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

PROPOSED AMENDED RULE 463

Subdivision (e) ─ Other Performance Requirements

Gasoline Storage Tank Requirement – Paragraph (e)(1)
Smaller gasoline tanks subject to Rule 463 are mostly gasoline dispensing tanks, which are required to comply with CARB regulations and Rule 461 by utilizing CARB certified vapor recovery systems. However, a CARB certified gasoline tank may not be able to comply with either performance requirement option noted in paragraph (e)(1). Aboveground storage tanks at gasoline dispensing facilities might not be able to simultaneously meet both CARB's standing loss control pressure range and the Rule 463 pressure setting compliance option. In addition, the Rule 463 test method for 98% efficiency is different from the CARB certification method for above ground gasoline transfer/dispensing tanks. Therefore, PAR 463 includes an additional compliance option for smaller gasoline storage tanks. The proposed amended rule includes vapor recovery systems that meet the requirements of Rule 461 as one of three control options for smaller gasoline tanks.

Floating Roof Requirement – Paragraph (e)(2)
A general term of floating roof tank is used to maintain consistency and improve clarity.

Subdivision (f) ─ Monitoring Requirements

OGI inspection requirements were added in the June 2024 amendment but did not clearly identify which type of tanks the OGI inspection requirements were applicable to. PAR 463 clarifies which tanks are required to conduct OGI self-inspections according to the detailed procedures stated in

subdivision (f). The type of tank applicable to each requirement in subdivision (f) was reviewed and specified in each paragraph. See the following sections for details.

Inspection and Maintenance Plan for Floating Roof Tanks ─ Subparagraph (f)(1)(A)
Since subdivision (f) was updated to clarify that the monitoring requirements apply to any tank, PAR 463 also needs to clarify that subparagraph (f)(1)(A) is only applicable to floating roof tanks.

Electronic Notification of Planned Maintenance ─ Subparagraph (f)(3)(C)
Since subdivision (f) was updated to clarify that the monitoring requirements apply to any tank, PAR 463 also needs to clarify that subparagraph (f)(3)(C) is only applicable to floating roof tanks.

Optical Gas Imaging Inspections ─ Subparagraph (f)(3)(D)
The effective date of initiating OGI inspections has past and is therefore removed.

Smaller gasoline tanks were not assessed as affected facilities during the June 2024 amendment to Rule 463. In addition, the cost-effectiveness analysis conducted for PAR 463 found that it was not cost-effective to perform OGI inspections on smaller gasoline storage tanks. Therefore, PAR 463 clarifies that the requirements for OGI inspections do not apply to smaller gasoline storage tanks.

Vapor Recovery Systems ─ Paragraph (f)(5)
The compliance deadline to complete an initial performance test to demonstrate 98% overall efficiency of a vapor recovery system has past and is therefore removed.

Subdivision (g) ─ Reporting and Recordkeeping Requirements

Inspection Report Form Requirement ─ Subparagraph (g)(1)(A)
After reviewing the rule language to clarify applicable requirements for each tank type, PAR 463 clarifies that subparagraph (g)(1)(A) is applicable to only floating roof tanks.

CHAPTER 3: IMPACT ASSESSMENTS

INTRODUCTION

Impact assessments were conducted as part of PAR 463 rule development to assess environmental and socioeconomic implications. These impact assessments include costs, emission reductions, socioeconomic impacts, and California Environmental Quality Act (CEQA) analysis. Staff prepared draft findings pursuant to Health and Safety Code Sections 40727 and 40727.2, respectively.

EMISSION REDUCTIONS

The proposed amendments to Rule 463 are administrative. There will not be additional emission reductions from tanks in adopting PAR 463.

COSTS

The provisions in PAR 463 are not expected to impose any additional costs.

SOCIOECONOMIC IMPACT ASSESSMENT

The proposed amendments to Rule 463 are administrative in nature and do not affect air quality or emission limitations. Therefore, a socioeconomic impact assessment is not required under Health and Safety Code Sections 40440.8 and 40728.5.

CALIFORNIA ENVIRONMENTAL QUALITY ACT ANALYSIS

Pursuant to the California Environmental Quality Act (CEQA) and South Coast AQMD's certified regulatory program (Public Resources Code Section 21080.5, CEQA Guidelines Section 15251(l) and South Coast AQMD Rule 110), the South Coast AQMD, as lead agency, is currently reviewing the proposed project (PAR 463) to determine if it will result in any potential adverse environmental impacts. Appropriate CEQA documentation will be prepared based on the analysis.

DRAFT FINDINGS UNDER HEALTH AND SAFETY CODE SECTION 40727

Requirements to Make Findings

Health and Safety Code Section 40727 requires that the Governing Board make findings of necessity, authority, clarity, consistency, non-duplication, and reference based on relevant information presented at the public hearing and in the staff report. In order to determine compliance with Health and Safety Code Section 40727, Health and Safety Code Section 40727.2 requires a written analysis comparing the proposed amended rule with existing regulations, if the rule meets certain requirements.

Necessity

A need exists to amend PAR 463 to clarify tank types subject to OGI inspections and control requirements for smaller gasoline tanks.

Authority

The South Coast AQMD obtains its authority to adopt, amend, or repeal rules and regulations pursuant to Health and Safety Code Sections 39002, 40000, 40001, 40440, 40702, 40725 through 40728, 40920.6, and 41508.

Clarity

PAR 463 is written or displayed so that its meaning can be easily understood by the persons directly affected by it.

Consistency

PAR 463 is in harmony with and not in conflict with or contradictory to existing statutes, court decisions, or state or federal regulations.

Non-Duplication

PAR 463 will not impose the same requirements as any existing state or federal regulations. The proposed amended rule is necessary and proper to execute the powers and duties granted to, and imposed upon, the South Coast AQMD.

Reference

In amending this rule, the following statutes which the South Coast AQMD hereby implements, interprets or makes specific are referenced: Health and Safety Code Sections 39002, 40001, 40406, 40702, 40440(a), and 40725 through 40728.5.

COMPARATIVE ANALYSIS

PAR 463 does not impose a new or more stringent emissions limit or standard, or a new or more stringent monitoring, reporting, or recordkeeping requirement. Therefore, consistent with Health and Safety Code Section 40727.2 (g), no comparative analysis is required.