SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

Preliminary Draft Staff Report
Proposed Rule 461.1 - Gasoline Transfer and Dispensing for Mobile Fueling Operations
Proposed Amended Rule 461 – Gasoline Transfer and Dispensing
Proposed Amended Rule 222 – Filing Requirements for Specific Emission Sources Not Requiring a Written Permit Pursuant to Regulation II
Proposed Amended Rule 219 – Equipment Not Requiring a Written Permit Pursuant to Regulation II

October 2021

Deputy Executive Officer
Planning, Rule Development and Area Sources
Sarah Rees, Ph.D.

Assistant Deputy Executive Officer
Planning, Rule Development and Area Sources
Susan Nakamura

Author:	Britney Gallivan – Air Quality Specialist Min Sue – Air Quality Specialist
Contributors:	Jason Aspell – Deputy Executive Officer Ryan Banuelos – Air Quality Specialist Shah Dabirian – Program Supervisor Nathaniel Dickel – Air Quality Engineer II Paul Macias – Air Quality Inspector II Randy Matsuyama – Air Quality Engineer II Kevin Ni – Air Quality Specialist Barbara Radlein – Program Supervisor Rafael Reynosa – Sr. Enforcement Manager Han Tran – Supervising Air Quality Inspector Brian Vlasich – Air Quality Specialist Jillian Wong – Assistant Deputy Executive Officer
Reviewed by:	Barbara Baird – Chief Deputy Counsel Neil Fujiwara – Program Supervisor Karin Manwaring – Senior Deputy District Counsel

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
GOVERNING BOARD

Chair: BEN J. BENOIT
Mayor Pro Tem, Wildomar
Cities of Riverside County

Vice Chair: VANESSA DELGADO
Senate Rules Committee Appointee

MEMBERS:

LISA BARTLETT
Supervisor, Fifth District
County of Orange

JOE BUSCAINO
Council Member, 15th District
City of Los Angeles Representative

MICHAEL A. CACCIOTTI
Mayor Pro Tem, South Pasadena
Cities of Los Angeles County/Eastern Region

GIDEON KRACOV
Governor's Appointee

SHEILA KUEHL
Supervisor, Third District
County of Los Angeles

LARRY MCCALLON
Mayor Pro Tem, Highland
Cities of San Bernardino County

VERONICA PADILLA-CAMPOS
Speaker of the Assembly Appointee

V. MANUEL PEREZ
Supervisor, Fourth District
County of Riverside

REX RICHARDSON
Vice Mayor, City of Long Beach
Cities of Los Angeles County/Western Region

CARLOS RODRIGUEZ
Mayor Pro Tem, Yorba Linda
Cities of Orange County

JANICE RUTHERFORD
Supervisor, Second District
County of San Bernardino

EXECUTIVE OFFICER:

WAYNE NASTRI

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

CHAPTER 1 – BACKGROUND

INTRODUCTION

EMISSIONS IN GASOLINE VAPORS

REGULATORY BACKGROUND

LEGAL AUTHORITY TO REGULATE GASOLINE DISPENSING FOR MOBILE FUELERS

GASOLINE DISPENSING PROCESS DESCRIPTION

CONTROLS FOR GASOLINE TRANSFER AND DISPENSING EMISSIONS

RETAIL MOBILE FUELING

CATEGORIES OF RETAIL MOBILE FUELERS

NEED FOR RULEMAKING

AFFECTED INDUSTRIES/FACILITIES

PUBLIC PROCESS

INTRODUCTION

Rule 461 – Gasoline Transfer and Dispensing (Rule 461) applies to the transfer of gasoline from any tank truck trailer, or railroad tank car into a stationary storage tank or mobile fueler, and from any stationary storage tank or mobile fueler into any motor vehicle fuel tank. Rule 461 controls volatile organic compound (VOC) and toxic emissions during the filling of storage tanks and when dispensing gasoline from both stationary gasoline dispensing facilities and mobile fuelers. Over the past several years, an emerging business model for on-demand retail dispensing of gasoline using mobile fuelers has developed. Although Rule 461 includes provisions for mobile fuelers, the variation of retail mobile fuelers was not envisioned when these provisions were established over 20 years ago.

Proposed Rule 461.1 – Gasoline Transfer and Dispensing for Mobile Fueling Operations (PR 461.1) would continue to regulate mobile fueling operations in a separate rule and incorporate similar requirements from Rule 461 in order to address both retail and non-retail mobile fueling operations. PR 461.1 would establish requirements for retail mobile fueler and non-retail mobile fueler with a cumulative capacity greater than 10 gallons and 120 gallons, respectively, to ensure VOC and toxic emissions are well controlled. Amendments to Rule 461 are also needed to remove the provisions pertaining to mobile fuelers. Rule 222 – Filing Requirements for Specific Emission Sources Not Requiring a Written Permit Pursuant to Regulation II (Rule 222) will be amended to include dispensing locations that are required to be registered. Rule 219 – Equipment Not Requiring a Written Permit Pursuant to Regulation II (Rule 219) will be amended to address previously exempt equipment to be consistent with PR 461.1, PAR 461, and PAR 222.

EMISSIONS IN GASOLINE VAPORS

Gasoline is a source of volatile organic compounds (VOCs) and Toxic Air Contaminants (TAC). VOC emissions are a pre-cursor to the formation of ozone. The South Coast Air Basin has been designated as extreme non-attainment of federal ozone standards and is required to implement all feasible measures to reduce pollutants that contribute to ozone such as VOC emissions. Gasoline is very volatile with a high vapor pressure (tendency to escape into the vapor phase), making the control of gasoline vapors critical in the minimization of VOC and TAC fugitive emissions that can affect the public.

The primary toxic air contaminant associated with gasoline vapors is benzene which is a carcinogen. Toluene and xylene are TACs that are also present in gasoline vapors, but are not carcinogens. In California, the Office of Environmental Health Hazard Assessment (OEHHA) is responsible for the scientific evaluation and determination of the health values for TACs that guide regulatory actions, including those of South Coast AQMD. Based on OEHHA's assessment health values, South Coast AQMD determined that benzene is the primary cancer risk driver for gasoline dispensing stations[1], while toluene and xylenes have acute adverse non-cancer health effects. The table below summarizes the cancer and noncancer acute health values for benzene, toluene, and xylene from OEHHA[2].

[1] South Coast AQMD. (2007, January). *Emission Inventory and Risk Assessment Guidelines for Gasoline Dispensing Stations*. South Coast Air Quality Management District. https://www.aqmd.gov/docs/default-source/planning/risk-assessment/gas_station_hra.pdf?sfvrsn=0

[2] OEHHA/CARB. (2020, October 2). *Consolidated Table of OEHHA/ARB Approved Risk Assessment Health Values*. California Air Resources Board. https://ww2.arb.ca.gov/sites/default/files/classic/toxics/healthval/contable.pdf

Table 1–1
Gasoline Health Risks for Toxic Air Contaminants – Cancer and Noncancer (Acute)

	Cancer	Noncancer
Chemical	**Inhalation Unit Risk ($\mu g/m^3)^{-1}$**	**Acute Inhalation ($\mu g/m^3$)**
Benzene	2.9E-05	2.7E+01
Toluene	NONE	5.0E+03
Xylenes (mixed isomers)	NONE	2.2E+04

REGULATORY BACKGROUND

Gasoline transfer and dispensing operations are regulated by both California Air Resources Board (CARB) and South Coast Air Quality Management District (South Coast AQMD). CARB has established vapor recovery systems for gasoline dispensing. CARB certifies the equipment and South Coast AQMD requires the use of CARB certified equipment to meet rule requirements. Gasoline transfer and dispensing operations in the South Coast AQMD's jurisdiction are regulated through Rule 461. Rule 461 was originally adopted by the South Coast AQMD on January 9, 1976 and focuses primarily on stationary retail gasoline dispensing facilities through requirements for vapor recovery systems that are tested and certified by CARB.

California Air Resources Board (CARB)

Portable Fuel Containers

Portable fuel containers, also known as gas cans, are used to fill a variety of equipment including lawnmowers, motor vehicles, and personal watercraft. As of July 1, 2007, all portable fuel containers with a capacity of 10 gallons or less sold in California must be certified by CARB[3] to meet the low-emission requirements. The process to be certified involves providing the portable fuel container to CARB so that it may be tested pursuant to Test Procedures TP-501 and TP-502 at an independent laboratory. The purpose of certifying is to ensure that spillage and evaporative emissions are minimized or eliminated through the implementation of low permeation plastics and automatic sealing nozzles.

CARB Certification Process for Gasoline Dispensing Equipment

State law requires CARB to adopt procedures and certify systems designed to control gasoline vapor emissions[4]. All California air districts rely on CARB certified equipment for gasoline transferring and dispensing. The vapor recovery certification process can take a few months up to

[3] CARB. (n.d.-a). *Final Regulation Order for Portable Fuel Containers*. California Air Resources Board. Retrieved October 5, 2021, from https://ww2.arb.ca.gov/sites/default/files/2021-02/pfcreg2016.pdf

[4] State of California. (2001, January 1). *HEALTH AND SAFETY CODE Section 41954*. California Legislative Information. https://leginfo.legislature.ca.gov/faces/codes_displaySection.xhtml?lawCode=HSC§ionNum=41954.

three years. The process to get a vapor recovery certification by CARB[5] is comprised of two main elements: pre-application process and the CARB certification process which are outlined below.

- Pre-application process involves the applicant:
    1. Requesting a research and development site approval
    2. Conducting research and development at approved site
    3. Prepare and submit initial application for certification
- CARB certification process:
    1. Determining the application is complete
    2. Creating a test plan and conducting the emissions tests
    3. Preparing and submitting Executive Order for review
    4. Having applicant submit approvals from other state agencies
    5. Issuing signed Executive Order

South Coast AQMD Permit to Operate – South Coast AQMD Rules 201, 203, and 219

Gasoline storage equipment beyond a specified capacity or equipped with pollution controls require permits with South Coast AQMD. South Coast AQMD has several rules that establish the requirements to have a permit.

Rule 201 – Permit to Construct and Rule 203 – Permit to Operate

Rule 201 – Permit to Construct requires authorization by the South Coast AQMD prior to the construction of equipment and Rule 203 – Permit to Operate requires a person not use or operate an equipment which may cause, reduce, or control the emission of air contaminants without a permit to operate and requires for the permitted equipment to operate pursuant to the conditions of the issued permit to operate for the equipment. Rule 203 requires a Permit to Operate for the basic equipment and the air pollution control system that is being installed to control emissions. For gasoline dispensing, equipment to control vapors from gasoline transfer and dispensing such as Phase I and Phase II vapor control systems are required to have a permit pursuant to Rule 203.

Rule 219 – Equipment Not Requiring a Written Permit Pursuant to Regulation II

Rule 219 – Equipment Not Requiring a Written Permit Pursuant to Regulation II specifies equipment or operations that are exempt from permitting requirements as they have limited or no emissions. Rule 219 (a) provides an exemption for equipment mounted on a motor vehicle, motor vehicle or marine vessel but only if such equipment does not emit air contaminants. For gasoline storage and transfer, Rule 219 exempts equipment used exclusively for VOC containing liquid storage or transfer to and from such storage, of less than 251 gallons capacity. However, this exemption does not apply where the combined storage capacity of all tanks exceeds 251 gallons and the tanks are mounted on a shared mobile platform. Rule 219 (s)(2)(A) states that permits are required when the maximum individual cancer risk, cancer burden, chronic hazard index, or acute hazard index will be greater than applicable risk thresholds identified in Rule 1401.

Any mobile fueler with a cumulative capacity equal to or greater than 251 gallons requires a permit as it is not exempt through Rule 219 (m)(9) and any mobile fueler with vapor control requires a permit as gasoline control equipment is not exempt through Rule 219. If the mobile fueler

[5] CARB. (n.d.-b). *Vapor Recovery Certification Process – Gasoline Dispensing Facilities | California Air Resources Board*. California Air Resources Board. Retrieved October 6, 2021, from https://ww2.arb.ca.gov/vapor-recovery-certification-process-gasoline-dispensing-facilities

dispenses into a motor vehicle and an individual tank is greater than 120 gallons, Rule 461 requires control equipment and the mobile fueler must be permitted.

South Coast AQMD – Rule 461

Rule 461 – Gasoline Transfer and Dispensing was adopted by South Coast AQMD on January 9, 1976, and regulates mobile and stationary gasoline dispensing facilities. Provisions for gasoline dispensing from mobile fuelers has been included in Rule 461 since 1995 and relied on the same approach as stationary gasoline dispensing which required the use of CARB certified Phase I and Phase II vapor recovery systems.

The most recent amendment in 2012 allowed for an alternative to compliance with requirements for installation of CARB certified Phase II enhanced vapor recovery (EVR) systems for fleets. The amendment allowed the owner or operator of a gasoline dispensing facility to dispense gasoline into their fleet motor vehicles provided they:

- Use existing CARB certified Phase II vapor recovery system with vapor return line blocked off
- Only dispense into motor vehicles that are equipped with Onboard Refueling Vapor Recovery (ORVR) and are owned or under direct control by the operator
- Maintain additional recordkeeping

Rule 461 requires that stationary gasoline dispensing facilities and mobile fuelers use CARB certified equipment when transferring and dispensing gasoline. South Coast AQMD relies on the CARB certification process to certify equipment for transferring and dispensing gasoline. The Hill-Vac Vapor Recovery System is the only mobile fueling system with both CARB certified Phase I and Phase II vapor recovery systems. Details of the Hill-Vac Vapor Recovery System are discussed later in Chapter 1 in Controls for Gasoline Transfer and Dispensing Emissions. Instead of having performance tests for each individual component, Rule 461 requires the use of specific control technologies that have been certified by CARB to control gasoline vapors at a specific control efficiency for both mobile fuelers and stationary gasoline dispensing facilities. This CARB certified equipment falls under two categories for all gasoline transfer and dispensing. The two categories of CARB certified equipment for mobile fuelers are:

- Phase I Vapor Recovery Systems – during transfer of gasoline into the tank of the mobile fueler
- Phase II Vapor Recovery Systems – during dispensing of gasoline into the tank of the motor vehicle

Other requirements under Rule 461 include operational requirements to ensure that the equipment is operated in a manner that minimizes gasoline vapors. Regular maintenance, inspections, repairs, and testing ensure equipment is operating according to manufacturer specifications and CARB certifications. Required recordkeeping and reporting of the above activities ensures compliance with Rule 461.

LEGAL AUTHORITY TO REGULATE GASOLINE DISPENSING FOR MOBILE FUELERS

Health and Safety Code Section 40000 provides that local and regional authorities have the primary responsibility for control of air pollution from all sources, other than emissions from motor

vehicles.[6] PR 461.1 seeks to control emissions not from motor vehicles but rather from the transfer and dispensing of gasoline while a mobile fueler is stationary. Health and Safety Code Section 41954(a) provides that the state board (CARB) adopts procedures and performance standards for systems for the control of gasoline vapor emissions during gasoline marketing, including storage and transfer operations. Section 41954(g)(3) goes on to provide that "any stricter procedures or performance standards shall not be implemented until at least two systems meeting the stricter performance standards have been certified by the state board." CARB has certified two Phase I vapor recovery systems for the transfer of fuels for mobile fuelers. For the dispensing of gasoline, CARB has only certified one mobile fueler with a Phase II vapor recovery system.[7] Although Rule 461 has required Phase II vapor recovery systems since 1995 for both stationary gasoline dispensing facilities and mobile fuelers that dispense gasoline, to ensure that PR 461.1 is not in conflict with Health and Safety Code Section 41954 (g)(3), PR 461.1 will not require a Phase II vapor recovery systems for mobile fuelers until at least two such systems have been certified by CARB.

As discussed above, CARB establishes the performance standard for vapor recovery requirements for gasoline transfer and dispensing. As a result, a Best Available Retrofit Control Technology (BARCT) technology assessment is not conducted for PR 461.1, nor is a BARCT limit established. Therefore, sections 40406 and 40920.6 are not applicable. By definition, a BARCT limit is based on the "maximum degree of reduction achievable", taking into consideration "environmental, energy, and economic impacts by each class or category of source." Section 40406. In this case, Section 41954(g) significantly circumscribes the South Coast District's discretion in setting performance standards and limits it to systems that have been certified by CARB. The South Coast AQMD does not have the legal ability to conduct a BARCT analysis which would require compliance with Section 40920.6. Moreover, Proposed Rule 461.1 is being adopted following the requirements of Section 41954, which is found in an entirely separate Part and Article of the Health and Safety Code (Part 4, Nonvehicular Air Pollution Control, Chapter [Chapter 3 "Emissions Limitations'] and Article 5, ["Gasoline Vapor Control"]) from the provisions relating to BARCT. This buttresses the conclusion that BARCT requirements do not apply to gasoline vapor recovery rules. But even if those provisions applied as a general rule, they do not apply to this case. This is because Proposed Rule 461.1 was not setting a new performance standard or new BARCT. Instead the standard was set by CARB many years ago for vapor recovery systems and has been applicable to mobile fuelers in the South Coast AQMD since 1995 under existing Rule 461. PR 461.1 does not make a standard more stringent, but rather aligns with the existing standard required by Rule 461, consistent with Section 41954(g)(3) as now proposed. If anything, the proposal is making the existing standard less stringent at least until a second system with Phase II is certified by CARB for mobile fuelers consistent with Section 41954(g). Accordingly, BARCT cost-effectiveness requirements under Section 40920.6 do not apply. For the same reason, Section 40703, requiring a finding concerning the cost-effectiveness of a proposed control measure, does not apply. Finally, 40922 does not apply to the adoption of rules and regulations but only the adoption of the air

[6] All section references are to the Health & Safety Code unless otherwise specified. Section 41954(g)(1) states that except as authorized by other law or this subdivision (g), no district may adopt or enforce stricter procedures or performance standards than those adopted by the state board.

[7] CARB. (1999b, December 9). *Executive Order G-70-193 for Certification of the Hill-Vac Vapor Recovery System for Cargo Tank Motor Vehicle Fueling Systems*. California Air Resources Board. https://arb.ca.gov/vapor/eos/eo-193/g70193all.pdf

quality management plan. *Sherwin Williams Co. v. South Coast Air Quality Management Dist.,* (2001) 86 Cal. App. 4th 1258, 1269.

GASOLINE DISPENSING PROCESS DESCRIPTION

Bulk loading terminals store and load gasoline into either a truck with cargo tanks that deliver to gasoline dispensing facilities, or directly into the mobile fuelers. Stationary gasoline dispensing facilities either dispense gasoline into motor vehicles or into the cargo tanks of mobile fuelers.

Bulk Loading Terminals

Bulk loading terminals are subject to Rule 462 – Organic Liquid Loading and Rule 463 – Organic Liquid Storage requirements. Rule 462 requires that gasoline loading operations to a transport vessel's (bulk tanker's) tank(s) or compartment(s) of a tank (e.g. bulk tankers or mobile fuelers) to be equipped with a vapor recovery system certified by CARB. Large bulk loading terminals routinely transfer thousands of gallons of gasoline into transport bulk tankers that make deliveries to stationary gasoline dispensing facilities or other storage tanks. A mobile fueler equipped with CARB certified Phase I vapor recovery system can be loaded with gasoline at these bulk loading terminals. The mobile fuelers that are allowed to be loaded are equipped with a loading line and vapor return line. Other types of mobile fuelers would not be able to be loaded at the bulk loading terminal.

Stationary Gasoline Transfer and Dispensing Facility

When bulk tankers arrive at a stationary gasoline dispensing facility, the gasoline is unloaded from the bulk tanker into either an underground storage tank (UST) or an aboveground storage tank (AST). Gasoline is loaded into the tanks by using a CARB certified Phase I vapor recovery system that uses a separate loading line and vapor return line. The tanks can either be used to load into a mobile fueler, motor vehicle, or other equipment. Motor vehicles receive gasoline from dispensing pumps that are equipped with a CARB certified Phase II vapor recovery system.

Mobile fuelers that are unable to obtain gasoline at a bulk loading terminal, load gasoline into the mobile fueler from stationary gasoline facilities. Phase I vapor recovery systems are a critical component of a mobile fueler to ensure vapors are captured during transfer of fuel into the cargo tank of the mobile fueler. A mobile fueler that is not equipped with loading and vapor return lines, will splash load gasoline into the mobile fueler cargo tank which creates additional vapors that are not captured through any pollution control and vented to the atmosphere.

Mobile Fueler

Mobile fuelers are mobile gasoline dispensing units that can dispense gasoline at various locations as they are a motor vehicle equipped with a gasoline cargo tank. Gasoline is either loaded at the bulk terminal or at a stationary gasoline dispensing facility. Since mobile fuelers can move to various locations, mobile fueling operations present unique challenges that are different than stationary gasoline dispensing facilities to track the location of dispensing activities and verify compliance.

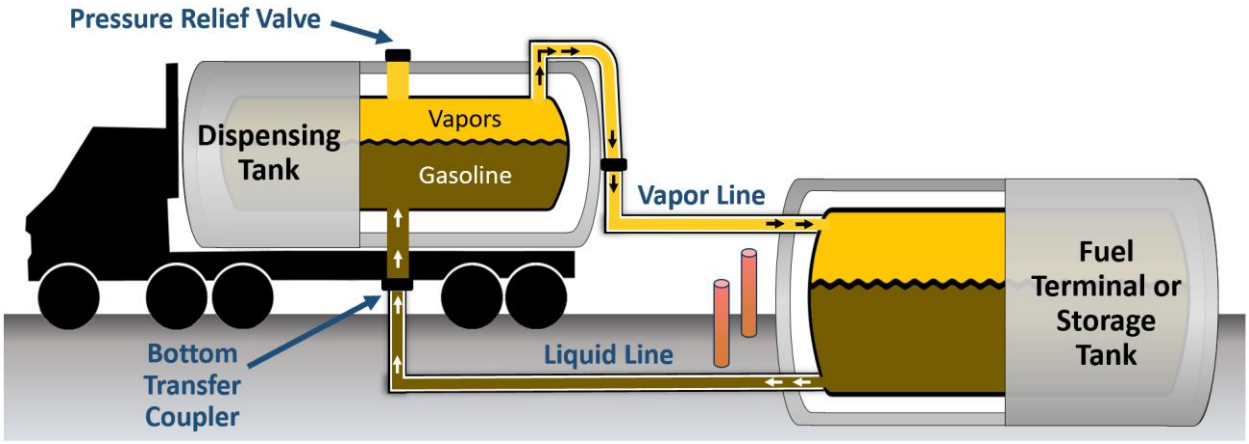
The discussion below focuses on the gasoline transfer and dispensing operations associated with control equipment on mobile fuelers and the equipment that mobile fuelers dispense gasoline into, typically a motor vehicle.

CONTROLS FOR GASOLINE TRANSFER AND DISPENSING EMISSIONS

CARB Certified Phase I Vapor Recovery System for a Mobile Fueler

Phase I vapor recovery is a system installed on a mobile fueler cargo tank for the collection and recovery of gasoline vapors displaced or emitted during the transfer of gasoline into and out of a mobile fueler cargo tank, except when dispensing. Figure 1-1 depicts the loading of gasoline into a mobile fueler equipped with a Phase I vapor recovery system. A mobile fueler with Phase I vapor recovery is loaded from the bottom of the tank (referred to as bottom loading) to reduce splashing of the fuel which can increase vapors. In general, cargo tanks on mobile fuelers are fueled either at a bulk loading terminal or from a stationary storage tank.

Figure 1-1
Mobile Fueler CARB Certified Phase I Vapor Recovery System



Mobile fueler Phase I vapor recovery systems are certified through CARB's Vapor Recovery Certification Procedure CP-204 – Certification Procedure for Vapor Recovery Systems of Cargo Tanks[8] (CP-204). The CARB vapor recovery test procedures and performance standards required by CP-204 are listed below:

- CARB Vapor Recovery Test Procedure TP-204.1 - Determination of Five Minute Static Pressure Performance of Vapor Recovery Systems of Cargo Tanks (TP-204.1)
- CARB Vapor Recovery Test Procedure TP 204.2 – Determination of One Minute Static Pressure Performance Vapor Recovery Systems of Cargo Tanks (TP-204.2)
- CARB Vapor Recovery Test Procedure TP-204.3 – Determination of Leak(s) (TP-204.3)

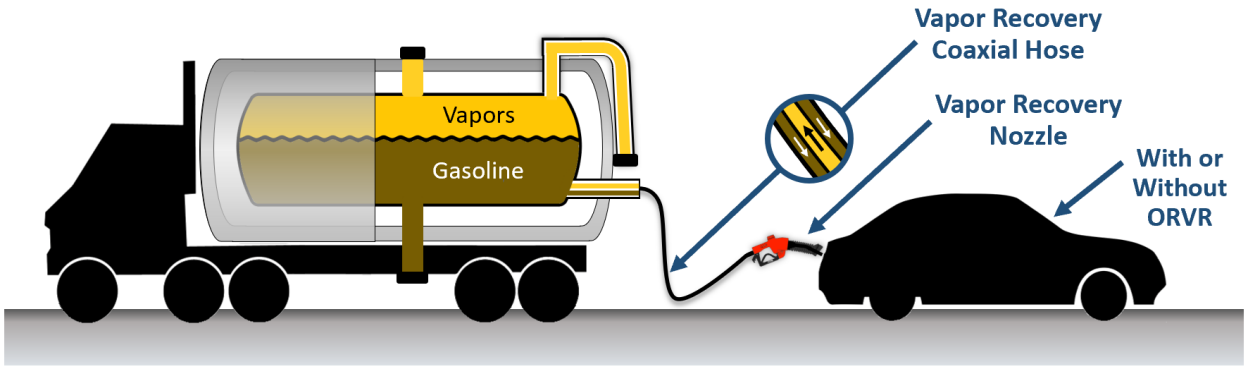
CARB Certified Phase II Vapor Recovery System for a Mobile Fueler

Phase II vapor recovery system is installed on a mobile fueler cargo tank for the collection and recovery of gasoline vapors displaced or emitted during the dispensing of gasoline from a mobile fueler cargo tank into a motor vehicle fuel tank. There are two types of Phase II vapor recovery dispensing equipment. A vacuum assist Phase II vapor recovery system dispenses gasoline through the exterior of the coaxial hose and utilizes a vacuum-producing device to create a vacuum to draw

[8] CARB. (2014b, November 7). *CP-204 – Certification Procedure for Vapor Recovery Systems of Cargo Tanks*. California Air Resources Board. Retrieved October 20, 2021, from https://ww2.arb.ca.gov/sites/default/files/2020-02/CP-204_Amended_11.07.2014r.pdf

vapors back into the cargo tank through the interior of the coaxial hose. A balance Phase II vapor recovery system dispenses gasoline though the interior of the coaxial hose and utilizes the principle of vapor displacement to draw vapors back into the cargo tank through the exterior of the coaxial hose. Figure 1-2 depicts a mobile fueler which is equipped with a Phase II vapor recovery system with a vacuum assist coaxial hose dispensing gasoline into a motor vehicle fuel tank.

Figure 1-2
Mobile Fueler CARB Certified Phase II Vapor Recovery System



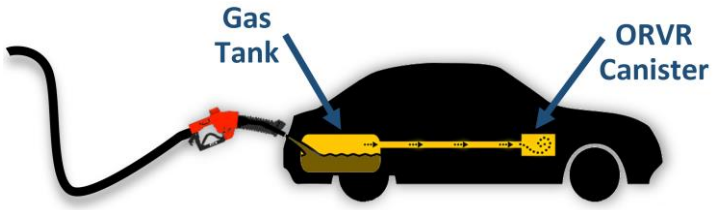
Mobile fueler Phase II vapor recovery systems are CARB certified through CARB's Vapor Recovery Certification Procedure CP-205 - Certification Procedure for Vapor Recovery Systems of Novel Facilities (CP-205). CP-205 requires the Phase II vapor recovery system efficiency be determined using CARB's Vapor Recovery Test Procedure TP-205.2 which is the Determination of Efficiency of Phase II Vapor Recovery Systems of Novel Facilities (TP-205.2) and it certifies vapor recovery systems to meet a minimum vapor recovery performance standard of ninety percent (90%) or ninety-five (95%) by weight.

Other Vapor Controls

ORVR is designed for on-road motor vehicles to control gasoline vapors during the filling of the motor vehicle's gas tank and is depicted in Figure 1-3. Key characteristics of ORVR are a narrower fill tube, valve to prevent vapors from returning to the fill tube, and a carbon canister, and is designed so that displaced gasoline vapors to go into the carbon canister. ORVR systems were introduced for 1998 model year motor vehicles and are now required on all new cars and trucks. ORVR is mandated by Title 13 of the California Code of Regulations (CCR), Section 1978 and 40 Code of Federal Regulations (CFR) Part 86. The ORVR phase-in period for passenger vehicles, light duty truck, and medium duty vehicles (up to 8500 lbs. GVWR) was already scheduled to meet 100% of fleets by 2006. ORVR systems must meet the regulatory standard of 95% control efficiency[9]. While ORVR has been demonstrated to be effective in controlling emissions, there are still many older cars without ORVR being operated on public roads and highways.

[9] Environmental Protection Agency. (1994, April 6). *Control of Air Pollution From New Motor Vehicles and New Motor Vehicle Engines; Refueling Emission Regulations for Light-Duty Vehicles and Light-Duty Trucks*. Federal Register. https://www.govinfo.gov/content/pkg/FR-1994-04-06/html/94-4752.htm

Figure 1-3
Onboard Refueling Vapor Recovery



CARB Executive Orders for Mobile Fuelers

There are currently two mobile fuelers which are certified by CARB:

1) CARB Executive Order G-70-193 for Certification of the Hill-Vac Vapor Recovery System for Cargo Tank Motor Vehicle Fueling Systems[7] (referred to herein as Model 1) and
2) CARB Executive Order VR-601 Related to the Certification of Mobile Dispensing System Non-Vapor Recovery Components for Booster Fuels, Inc. Mobile Fueling On-Demand Tank Vehicle Gasoline Dispensing System for ORVR Vehicles[10] (referred to herein as Model 2)

CARB Certification of the Hill-Vac Vapor Recovery System for Cargo Tank Motor Vehicle Fueling Systems

CARB Executive Order G-70-193 for Certification of the Hill-Vac Vapor Recovery System for Cargo Tank Motor Vehicle Fueling Systems was first issued on December 9, 1999. The mobile fueler is equipped with pre-EVR Phase I and Phase II vapor recovery systems that are CARB certified to be 95% effective. The Phase II vapor recovery system also includes requirements designed to prevent absorption of sunlight by the cargo tank and temperature fluctuations. The requirements resulted in lower diurnal pressure variations that ultimately leads to decreased emission venting. Some of these key requirements include:

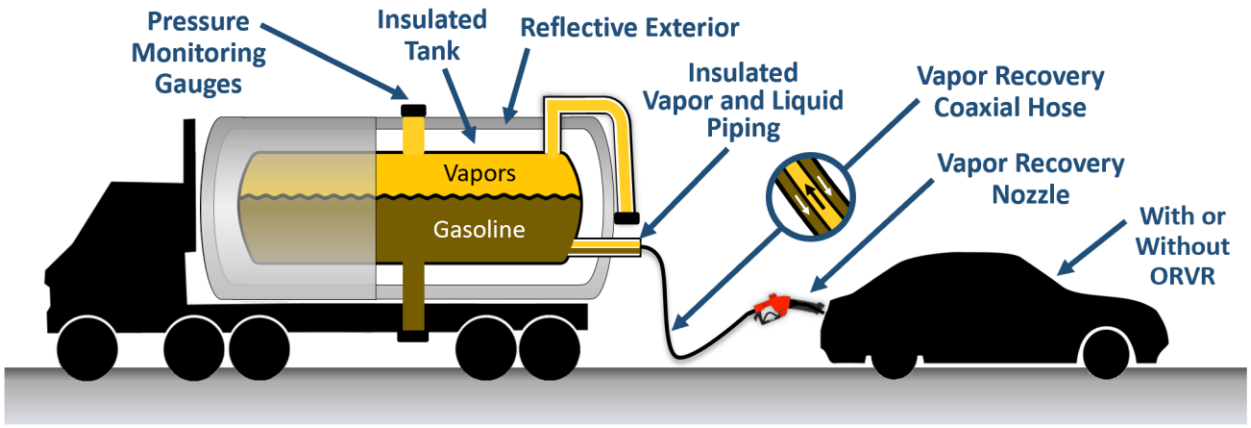
- Tank exterior is wrapped in 1/16 inch 304 stainless steel to achieve a better reflectivity value and reduce solar energy transfer to the fuel
- Cargo tank is insulated with 3 inches of cellular polymer foam providing an insulating value of R-15-9
- Insulated with a minimum of 0.5 inch of seamless rigid polyurethane foam or pre-formed foam pipe insulation
- Equipped with removable covers that surround the jet pump to reduce solar energy transferred to the fuel during dispensing

Additionally, the Phase II vapor recovery system is required to be equipped with pressure gauges to monitor the vapor return line vacuum, gasoline supply, and cargo tank vapor space as well as to maintain these gauges within parameters. Figure 1-4 depicts this mobile fueler that is equipped

[10] CARB. (2021, February 19). *Executive Order VR-601-A Related to the Certification of Mobile Dispensing System Non-Vapor Recovery Components for Booster Fuels, Inc. Mobile Fueling On-Demand Tank Vehicle Gasoline Dispensing System for ORVR Vehicles*. California Air Resources Board. https://arb.ca.gov/vapor/eos/eo-vr601/eo-vr601a.pdf

with CARB certified Phase I and Phase II vapor recovery systems dispensing gasoline into a motor vehicle fuel tank.

Figure 1-4
Mobile Fueler Equipped with CARB Certified Phase I and Phase II Vapor Recovery Systems



Since 2019, a crucial component of the CARB certified Phase II vapor recovery system has not been available. The Phase II vapor recovery system is certified for use with Healy Model 400 ORVR nozzles that are each equipped with two Healy Model 100 Jet Pumps that were manufactured by Franklin Fueling Systems. However, Franklin Fueling Systems discontinued manufacturing Healy Model 100 Jet Pumps. In response, Franzen-Hill, the owner of the certification, created the Hill-Vac Model 20 and Model 2020 Jet Pumps to function as a replacement for the Healy Model 100 Jet Pump. As of October 2021, Franzen-Hill is undergoing the recertification process with CARB to make available a mobile fueler equipped with CARB certified Phase I and Phase II vapor recovery systems with the replacement part. While Franzen-Hill has the Healy Model 100 Jet Pump in stock to service existing mobile fuelers, they are not producing new mobile fuelers with the Healy Model 100 Jet Pump. Therefore, until the recertification is complete, no new mobile fuelers equipped with a CARB certified Phase I and Phase II vapor recovery system are commercially available. There are 67 mobile fuelers subject to Rule 461 that are operating with South Coast AQMD permits to operate and all of these are Model 1 mobile fuelers.

CARB Certification Related to the Certification of Mobile Dispensing System Non-Vapor Recovery Components for Booster Fuels, Inc. Mobile Fueling On-Demand Tank Vehicle Gasoline Dispensing System for ORVR Vehicles

CARB Executive Order VR-601 Related to the Certification of Mobile Dispensing System Non-Vapor Recovery Components for Booster Fuels, Inc. Mobile Fueling On-Demand Tank Vehicle Gasoline Dispensing System for ORVR Vehicles was first issued on February 19, 2021. This mobile fueler is equipped with a pre-EVR Phase I vapor recovery system but is not equipped with a pre-EVR Phase II vapor recovery system. The key operational requirements of the Executive Order include:

- Comply with all applicable local air district rules and permitting requirements;
- Meet all local fire and life safety standards and permitting requirements of the local Fire Marshal and/or Certified Unified Program Agency (CUPA), where applicable;

- Dispense gasoline only to motor vehicles equipped with ORVR. This Executive Order pre-empts any District ORVR fleet exemption level established in District rules. Dispensing gasoline to non-ORVR vehicles, or any gasoline containers, is prohibited;
- Perform all loading of gasoline into MFOD tank vehicles at terminals with CARB certified vapor recovery systems. MFOD tank vehicles shall be filled from the bottom per CARB Executive Order G-70-10-A;
- Prohibit operators and employees from "splash loading" gasoline, or loading in a means other than bottom loading or filling without a submerged fill pipe, i.e., dispensing with a nozzle through an open compartment dome lid into MFOD tank vehicles, under all circumstances unless in the case of an emergency as determined by local, state, and/or federal fire and life safety standards;
- Annually test and certify all MFOD tank vehicles as required by CARB Certification Procedure for Vapor Recovery Systems of Cargo Tanks (CP-204), and affix a current CARB decal indicating compliance;
- Maintain records, in an electronic format approved by the Executive Officer, demonstrating that only ORVR vehicles are refueled by MFOD tank vehicles. Such records shall be provided to the district as directed by the district, and to CARB upon request; and
- Maintain copies of all required permits in each individual MFOD tank vehicle and make these available to all permitting agencies upon request.

Unlike Model 1, this certification does not include requirements designed to reduce the tank temperature and diurnal pressure variations that can lead to greater vapor losses. It also does not include any requirements for pressure gauge monitoring or specify requirements for tank insulation or color.

Although CARB Executive Order VR-601 for the mobile fueler is CARB certified through CP-205, the mobile fueler is not certified through TP-205.2, which is the test procedure CP-205 requires to determine the efficiency of a Phase II vapor recovery. The cover letter for CARB Executive Order VR-601 states that the "Booster Tank Vehicle does not meet CARB requirements for Phase II vapor recovery, and therefore does not control gasoline vapors when fueling non-ORVR vehicles or other fuel tanks." CARB Executive Order VR-601 requires that the mobile fueler only fuel ORVR motor vehicles and prohibits dispensing gasoline into non-ORVR motor vehicles and other fuel tanks.

CARB certified Phase II vapor recovery and CARB certified non-vapor recovery components fueling ORVR equipped motor vehicles are not equivalent. Phase II vapor recovery systems provide additional reductions when fueling motor vehicles equipped with ORVR.

RETAIL MOBILE FUELING

Within South Coast AQMD's jurisdiction, retail gasoline fueling of motor vehicles has nearly exclusively taken place at stationary gasoline dispensing facilities. In comparison, non-retail gasoline fueling of motor vehicles is where the owner of the gasoline dispensing equipment is the same as the owner of the motor vehicle fleet or equipment. Non-retail mobile fueling predominately takes place at non-retail stationary gasoline dispensing facilities, but also includes non-retail mobile fueling of stationary equipment such as emergency backup generators, off-road

equipment such as construction equipment or amusement park attractions, fueling of fleet motor vehicles, and emergency fueling of motor vehicles owned by utility providers.

Although the retail gasoline mobile fueling of motor vehicles is allowed by Rule 461, until recent years, Rule 461 mobile fuelers have mostly been used for non-retail purposes. A non-retail mobile fueler typically provides support to a facility's primary operation, such as providing gasoline to a fleet or back-up engines. The amount of gasoline dispensed is limited because the non-retail mobile fueler is only providing gasoline to motor vehicles or equipment owned by the same company. This contrasts to a retail mobile fuelers that sell gasoline to customers because retail mobile fueling is not limited to equipment or motor vehicles owned by the mobile fueling company. Staff has been aware of roadside assistance providers delivering gasoline in small portable fuel containers to stranded motor vehicles, but these operations appear to be de minimis and occur out of necessity.

As communication technologies developed, technology companies were able to fulfill consumer demands to immediate access to good and services through on-demand services. Mobile fueling on-demand (MFOD) services allows fuel to be delivered directly to the consumer's location and dispensed into the motor vehicle when requested. Staff has observed the following regarding MFOD, indicating a developing industry:

- Deployment of on-demand fuel delivery smartphone apps;
- Mobile fueling services offered at local sports[11] and entertainment[12] venues; and
- Advertisements for MFOD services.

In 2018 Booster Fuels, Inc (Booster Fuels) approached the South Coast AQMD and applied for a research and development permit under Rule 441 – Research Operations for five (5) retail mobile fuelers. These Model 2 mobile fueling units were unable to be permitted under Rule 203 because they are not equipped with a CARB certified Phase II vapor recovery system. On February 19, 2021, Booster Fuels received final certification of their model with CARB Executive Order VR-601-A[13]. This certification does not include Phase II vapor recovery equipment and limits operation to only fueling into ORVR motor vehicles.

Compliance Challenges with Mobile Fueling

Gasoline dispensing is a well regulated industry. Inspectors visit gasoline dispensing facilities to verify compliance with Rule 461 and permit conditions to ensure that the dispensing equipment is good operating condition, operators are adhering to throughput limits in permit, and the recordkeeping, monitoring, and testing requirements are implemented pursuant to Rule 461. Mobile fueling presents unique challenges relative to stationary gasoline dispensing facilities because the fueling location is not fixed and there is no specific day and time that fueling is occurring at each location. Adding to the complexity of regulating mobile fueling is the need for verification that motor vehicles fueled must be equipped with ORVR for mobile fuelers that are dispensing with a CARB certified non-vapor recovery components. In the past, the South Coast

[11] Prisbell, E. (2020, March 5). *On-demand fuel delivery coming to Dodger Stadium this year*. The Business Journals. https://www.bizjournals.com/losangeles/news/2020/03/05/on-demand-fuel-delivery-coming-to-dodger-stadium.html

[12] Pankey, R. (2020, February 21). *AEG to Fill Up With Fuelster.* Los Angeles Business Journal. Https://Labusinessjournal.Com/News/2020/Feb/21/Aeg-Fuelster-Gas-Delivery/. https://labusinessjournal.com/news/2020/feb/21/aeg-fuelster-gas-delivery/

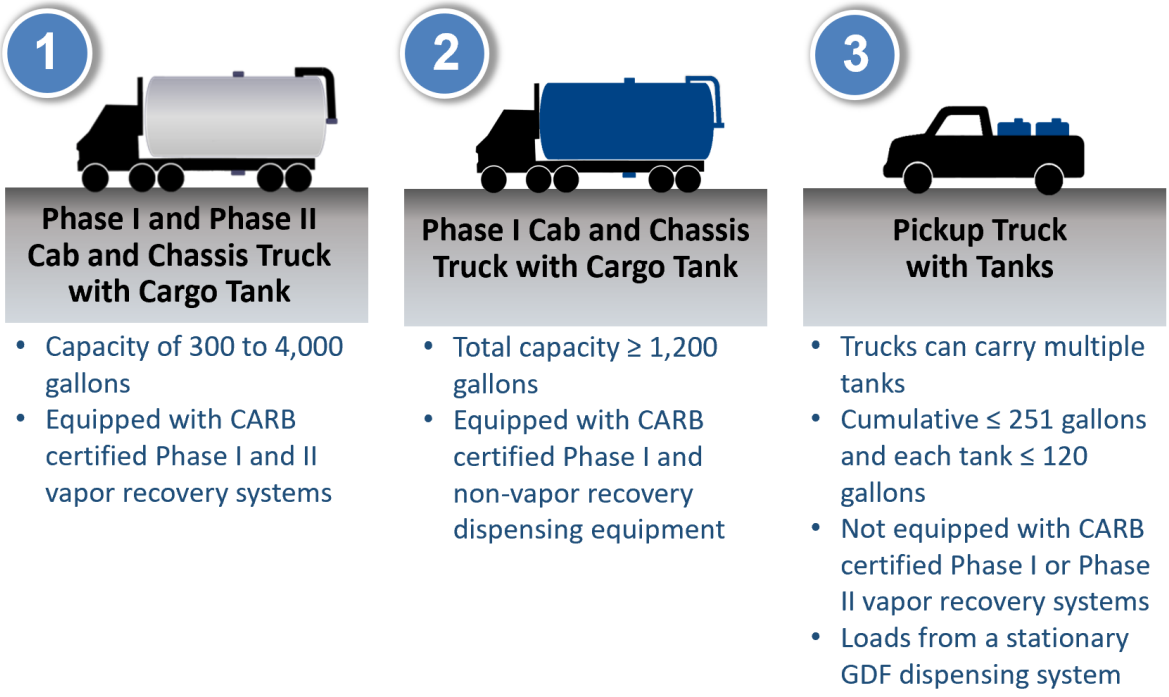
[13] CARB. (2021, February 19). *EXECUTIVE ORDER VR-601-A.* California Air Resources Board. https://arb.ca.gov/vapor/eos/eo-vr601/eo-vr601a.pdf

AQMD staff has expended significant resources verifying ORVR status, verifying the amount of fuel transferred into a mobile fueler is representative of the amount of the fuel dispensed, and verifying that mobile fuelers are not splash loading. As a result, PR 461.1 includes specific provisions that limit opening of the dome hatch, and additional monitoring, recordkeeping and reporting requirements beyond Rule 461 to address these compliance challenges unique to mobile fueling operations.

CATEGORIES OF RETAIL MOBILE FUELERS

As part of the rule making process, staff distributed a survey of mobile fueling operations to collect information to accurately account for various types of operations, properly assess potential impacts, and to help inform the rulemaking efforts for mobile fueling operations. Based on the survey results, news articles, internet searches, and discussions with stakeholders, staff identified three categories of gasoline mobile fuelers. The models were characterized based on use of Phase I and Phase II vapor recovery systems, gasoline cargo tank capacity, and number of gasoline containers. Figure 1-5 illustrates these three models of mobile fuelers.

Figure 1-5: Mobile Fueler Model Categories



Staff analyzed the current Rule 461 applicability and has illustrated in Table 1-2 which models are currently allowed, not allowed, or unregulated by Rule 461.

Table 1-2
Mobile Fueler Rule 461 Regulatory Applicability

Mobile Fueling System	Cumulative Capacity (Gallons)	Allowed in Rule 461	
		Non-Retail	Retail
1  Phase I and Phase II Cab and Chassis Truck with Cargo Tank	300 - 4,000	Allowed	Allowed
2  Phase I Cab and Chassis Truck with Cargo Tank	≥ 1,200	Allowed	Not Allowed
3  Pickup Truck with Tanks	< 251 [1]	Unregulated	Unregulated

[1] Each individual tank is ≤ 120 gallons

Model 1 Mobile Fueler – Phase I and Phase II Vapor Recovery System
Model 1 mobile fuelers are equipped with CARB certified Phase I and Phase II vapor recovery systems, this is the Hill-Vac Vapor Recovery System previously described. Rule 461 allows these models for the retail and non-retail dispensing of gasoline into motor vehicles. The permitted mobile fueler primarily consists of this model of mobile fueler. As discussed earlier, the Hill-Vac Vapor Recovery system is the only mobile fueler with CARB certified Phase I and Phase II vapor recovery systems, but this model is currently commercially unavailable for new purchases.

Model 2 Mobile Fueler – Phase I Vapor Recover and No Phase II Vapor Recovery
Model 2 mobile fuelers are equipped with CARB certified Phase I vapor recovery systems, but no Phase II vapor recovery. Rule 461 allows these models for non-retail dispensing of gasoline into ORVR equipped motor vehicles, but does not allow use for retail dispensing of gasoline. Staff is aware of two operators of this model, the first operates with a South Coast AQMD permit for non-retail purposes which is not equipped with CARB certified non-vapor recovery components for dispensing and does not dispense into motor vehicles. The second operator of this model operates with South Coast AQMD research and development permits for retail purposes. This Model 2 mobile fueler is equipped with CARB certified non-vapor recovery components for dispensing and only dispenses into motor vehicles equipped with ORVR. The research and development permitted equipment is equipped with non-vapor recovery components for dispensing and the CARB executive order restricts the mobile fueler from dispensing into anything other than ORVR equipped motor vehicle.

Model 3 Mobile Fueler – No Phase I and No Phase II
Model 3 mobile fuelers do not have CARB certified Phase I or Phase II vapor recovery systems. Rule 461 does not allow this model for the fueling motor vehicles if the cumulative gasoline storage capacity is greater than 251 gallons or if an individual tank is greater than 120 gallons. Model 3 mobile fuelers below these capacities are unregulated by the vapor recovery requirements

of Rule 461 and exempt from permitting. Staff is aware of both retail and non-retail use of this model operating with capacities that are unregulated by Rule 461 and exempt from permitting. Unregulated Model 3 mobile fuelers could be used to circumvent the permitting and vapor recovery costs of a Model 1 or Model 2 mobile fueler. PR 461.1 seeks to address this regulatory gap. Table 1-3 – Regulatory Gap for Mobile Fuelers outlines the regulatory gap for mobile fuelers Model 1, 2, and 3.

Table 1-3
Regulatory Gap for Mobile Fuelers

Mobile Fueling System	Cumulative Capacity (Gallons)	Requires a South Coast AQMD Permit to Operate?	Regulatory Gap
1  Phase I and Phase II Cab and Chassis Truck with Cargo Tank	300 - 4,000	Yes	None
2  Phase I Cab and Chassis Truck with Cargo Tank	≥ 1,200	Yes	Permit required, but cannot be issued for retail fueling since it is not allowed under Rule 461
3  Pickup Truck with Tanks	< 251 [1]	No	Not required to be permitted and Rule 461 does not currently apply to this equipment

[1] Each individual tank is ≤ 120 gallons

International Fire Code Section 5707 – On-Demand Mobile Fueling Operations

Introduced in 2016, International Fire Code (IFC) Section 5707 – On-Demand Mobile Fueling Operations model code was approved for inclusion with an effective date of July 1, 2018. At the state and local level, fire authorities may elect to adopt the model code to make it law and enforceable. The Office of the State Fire Marshal (Cal Fire or OSFM) incorporated the mobile fueling model codes into Chapter 57 Section 5707 – On-Demand Mobile Fueling Operations, but did not adopt the code. The Orange County Fire Authority did not adopt the model code, but does allow mobile fuelers to conduct fleet fueling (retail and non-retail). Based on conversations with the Los Angeles Fire Department, the model code has not been adopted and they have not issued any permits. Los Angeles Fire Department does not allow any on-demand retail fueling operations but does allow non-retail fleet fueling.

IFC On-Demand Mobile Fueling Operations Section 5707's key components for mobile fueling include:

- Regulation describes on-demand mobile fueling as motor vehicles mounted with a tank >110 gallons and chassis-mounted tanks or containers where the aggregate cargo capacity < 1,200 gallons
- Applicable to on-demand mobile fueling operations that dispense gasoline and other combustible or flammable liquids into fuel tanks of motor vehicles
- Regulations provide requirements for technical and administrative safety controls
  - Mobile fueling operations require an approved permit from the fire officials
  - Specifies requirements for safety and emergency response plans, training records, site plans, equipment, and operations

- Prohibits mobile fueling on public streets, public ways, or inside buildings and fueling on the roof level of parking structures or other buildings

NEED FOR RULEMAKING

Unlike stationary gasoline dispensing facilities which operate at a fixed address (site), these retail mobile fuelers operate at various locations. This is important because during the permitting process at the South Coast AQMD, the health risk from the facility (gas station) is evaluated to ensure that the facility emissions do not pose a health risk to sensitive receptors nearby. In addition, the retail mobile fuelers are not all equipped with vapor recovery systems that are required of stationary gas stations.

Retail mobile fuelers have higher emissions per gallon of gasoline dispensed compared to stationary gasoline dispensing facilities that comply with Rule 461. There are increased loading emissions for mobile fuelers that lack CARB certified Phase I vapor recovery systems and increased dispensing emissions for mobile fuelers that are not equipped with a CARB certified Phase II vapor recovery system. In addition, the storage of gasoline in above ground storage tanks are insulated and have a reflective exterior to reduce the tank temperature which will result in lower evaporative emissions than mobile fuelers that are not insulated and have a darker or non-reflective exterior.

Based on the regulatory gap for mobile fueling operations, rulemaking is needed to address these operations to ensure public health is protected by establishing operating requirements and permitting requirements to evaluate the retail mobile fueling operation. The approach to addressing this issue is to regulate mobile fueling operations in PR 461.1 while amending Rule 461 to limit its applicability to stationary gasoline transfer and dispensing facilities. Additionally Rule 219 and 222 are being amended to modify permitting requirements for previously exempt mobile fuelers and dispensing locations as well as require registration for dispensing locations used for retail mobile fueling operations.

AFFECTED INDUSTRIES/FACILITIES

Based on the South Coast AQMD permit database and survey for PR 461.1, staff estimates that there are approximately 80 mobile fuelers operating at 38 facilities in the South Coast AQMD's jurisdiction that would be affected by PR 461.1, PAR 461, PAR 222, or PAR 219.

PUBLIC PROCESS

Development of PR 461.1, PAR 461, PAR 222, and PAR 219 is being conducted through a public process. A PR 461.1, PAR 461, PAR 222, and PAR 219 Working Group was formed to provide the public and stakeholders an opportunity to discuss important details about the proposed rule and provide staff with input during the rule development process. The Working Group is composed of representatives from businesses, environmental groups, public agencies, and consultants. As of October 22, 2021, staff has held seven Working Group Meetings conducted in a virtual format using Zoom due to COVID-19 restrictions. The meetings were held on September 2, 2020, December 16, 2020, March 18, 2021, June 2, 2021, June 24, 2021, August 4, 2021, and September 22, 2021. In addition, a Public Workshop will be held on October 27, 2021 to present PR 461.1, PAR 461, PAR 222, and PAR 219 and receive public comment.

CHAPTER 2 - SUMMARY OF PROPOSED RULE 461.1

OVERVIEW OF PR 461.1

PROPOSED RULE 461.1

OVERVIEW OF PR 461.1

PR 461.1's objective is to reduce VOC and TAC emissions from mobile fueling operations due to the transfer and dispensing of gasoline. PR 461.1 accomplishes this by incorporating similar requirements found in Rule 461 – Gasoline Transfer and Dispensing specifically the use of CARB certified Phase I and Phase II vapor recovery systems for mobile fuelers, both retail and non-retail. Requirements currently in Rule 461 for mobile fuelers will be removed through PAR 461 resulting in the requirements to apply to only stationary gasoline transfer and dispensing facilities.

PR 461.1 would apply to mobile fueling operations and apply to the transfer of gasoline from any source into or out a mobile fueler as well as the dispensing of gasoline from the mobile fueler to any motor vehicle fuel, container, or equipment. The owner or operator of a dispensing location that allows retail gasoline mobile fueling operations would also be subject to PR 461.1 as would persons conducting testing, installations, maintenance, and sellers and manufacturers of CARB certified equipment for mobile fuelers.

As discussed in Chapter 1, as of October 2021 there are no CARB certified Phase I and Phase II vapor recovery systems commercially available to purchase for new mobile fuelers. Interim operating requirements are included in PR 461.1 to temporary allow mobile fuelers lacking CARB certified Phase II systems to operate until two CARB certified Phase I and Phase II vapor recovery systems become certified.

Need for Proposed Rule 461.1

As previously discussed, CARB certified Phase I and Phase II vapor recovery systems are the standard for gasoline transfer and dispensing operations for both stationary and mobile fueling operations for Rule 461. Rule 461 does not address small mobile fuelers that are either not permitted to operate and/or unregulated in the South Coast AQMD's jurisdiction. Previously these small mobile fuelers were operating in limited non-retail function, however, the concern is that retail mobile fuelers could be operating, similar to stationary gasoline dispensing facility, at locations that have not been evaluated for health risk to sensitive receptors unlike larger mobile fuelers that have a permit to operate. The emissions from retail gasoline mobile fueling operations need to be evaluated at dispensing location to not exceed health risk thresholds. This will be accomplished using throughput limits that are evaluated a risk assessment during the permit evaluation process that will allow for higher throughput limits.

While CARB has certified a mobile fueler with only Phase I vapor recovery system, that mobile fueler does not meet the requirements of Rule 461 since it not equipped with a certified Phase II vapor recovery system. PR 461.1 is needed to provide a pathway to allow the operation of mobile fuelers that are equipped with Phase I vapor recovery systems, until two Phase II vapor recovery systems are certified by CARB.

PR 461.1 is needed to ensure that emissions of VOC and TACs found in gasoline vapors are controlled during mobile gasoline transfer and dispensing operations. PR 461.1 would address mobile fueling operations and the dispensing locations where they would operate. Dispensing locations would require registration or permits to operate and would list the owner or operator of the retail mobile fueler allowed to operate at the site. Additional health protective measures based on nearest sensitive receptors would be incorporated in dispensing location requirements.

PROPOSED RULE 461.1

Purpose – Subdivision (a)

The purpose of PR 461.1 is to reduce emissions of volatile organic compounds and toxic emission from mobile fueling operations. A mobile fueler is a mobile motor vehicle that has one or more cargo tanks on-board or tows one or more cargo tanks as defined in subdivision (c). Mobile fuelers may be either retail or non-retail.

Applicability – Subdivision (b)

This rule applies to the owner or operator of a mobile fueler that conducts retail or non-retail operations or to owner or operators of dispensing locations where retail mobile fuelers operate. The rule also applies to any person that conducts testing, installation, repairs, provides parts or maintenance on mobile fuelers with CARB certified equipment as well as any manufacturer of CARB certified equipment or associated components thereof. The applicability of this rule is not limited to the dispensing of gasoline into motor vehicles and may include portable fuel containers and other combustion equipment.

Definitions – Subdivision (c)

PR 461.1 includes definitions for specific terms used in other subdivisions. Many of the definitions are based on Rule 461 with slight modifications, while other definitions are specific to PR 461.1. For certain definitions, additional clarification is provided where the definition is used in specific subdivisions. Please refer to PR 461.1 subdivision (c) for definitions used in the proposed rule. Some key definitions are explained below or in the subdivisions where they occur.

- CONTROL EQUIPMENT means a Phase I Vapor Recovery System, a Phase II Vapor Recovery System, or a Non-Vapor Recovery Component for Dispensing.

References to control equipment in the rule are specific to Phase I vapor recovery systems, Phase II vapor recovery system, or non-vapor recovery equipment for dispensing on mobile fuelers. This equipment would need to receive final certification from CARB before it would satisfy vapor recovery requirements in PR 461.1.

- CUMULATIVE CAPACITY means the mobile fueler's combined capacity of the storage capacity of each cargo tank that is on a mobile fueler at a given time, excluding one individual portable fuel container with a capacity up to 5 gallons.

The requirements in PR 461.1 are based on the cumulative storage capacity of the mobile fuelers and the type of equipment that is dispensed, retail or non-retail. As discussed in Chapter 1, smaller mobile fuelers may have multiple cargo tanks that contain gasoline. By specifying the cumulative capacity accounts to all tanks, except a single portable fuel container, clarifies how to determine if the mobile fueler would be subject to the requirements of the rule. The exclusion of a single portable fuel container up to 5 gallons is for the dispensing of gasoline to a motor vehicle or equipment that cannot be reached by the mobile fueler's dispensing hose and nozzle, such as emergency backup generators or irrigation pumps. It also allows emergency roadside services, which do not act as mobile fuelers, to dispense enough gasoline into the motor vehicle of a stranded motorist in order to reach a nearby gas station.

- NON-RETAIL MOBILE FUELER means a mobile fueler with a cumulative capacity greater than 120 gallons and the owner or operator of the mobile fueler is not compensated for the transfer or dispensing of gasoline.

Non-retail operators a mostly comprised of owner or operators that dispense gasoline from their mobile fueler into their own fleet of motor vehicles. These include government, public utility, and large corporations.

- RETAIL MOBILE FUELER means a mobile fueler with a cumulative capacity greater than 10 gallons and the owner or operator of the mobile fueler is compensated for the transfer or dispensing of gasoline.

Mobile fuelers that transfer or dispense gasoline to customers who compensate the owner or operator of the mobile fueler are classified as retail. This would include mobile fuelers that compensated specifically for the gasoline, but also include business models that could be subscription based where gasoline is provided as part of a service package. The capacity threshold of 10 gallons was established for retail mobile fuelers to exclude emergency roadside service providers and discourage the use of unregulated smaller mobile fueler configuration for retail purposes. Additionally, as previously discussed in Chapter 1, portable fuel containers up to a 10-gallon capacity are regulated by CARB and would not need to be regulated individually under PR 461.1.

Vapor Recovery Requirements for Mobile Fuelers – Subdivision (d)

Subdivision (d) specifies the vapor recovery requirements for both transfer and dispensing for retail and non-retail mobile fuelers. All transfers into and from mobile fueler transfers are required to be controlled with a CARB Certified Phase I vapor recovery system. Unlike Rule 461, this would include motor vehicle and non-motor vehicles. CARB established CP-204 as the process to certify cargo tanks that are equipped with vapor recovery to meet performance standards. The certification has not been listed as a standalone certification but is included in the certification as part of the complete certification of a CARB certified Phase I and Phase II vapor recovery system for a mobile fueler. The requirement to be equipped with a CARB certified Phase II vapor recovery system is limited to only when fueling into motor vehicles as the certification is specific to motor vehicles.

Provisions for Non-Vapor Recovery Component for Gasoline Dispensing

Paragraph (d)(3) provides alternative requirements for a mobile fueler that is equipped with a CARB certified Phase I vapor recovery system and a CARB certified non-vapor recovery component for dispensing. As discussed in Chapter 1, the one CARB certified Phase I and Phase II vapor recovery system for mobile fuelers is currently not available for new purchases, and is undergoing a re-certification process. As a result, there is no CARB certified Phase I and Phase II vapor recovery system for mobile fuelers that is commercially available to purchase, but there are currently permitted mobile fuelers equipped with CARB certified Phase I and Phase II vapor recovery system that continue to be operational. As of October 2021, the only other mobile fueler with a CARB certification for dispensing is the Model 2 mobile fueler identified in CARB Executive Order VR-601 that is equipped with CARB certified Phase I vapor recovery and non-vapor recovery components for dispensing that is specific to Booster Fuels. CARB Executive Order VR-601 stipulates a series of conditions of the certification which includes provisions that have been incorporated into PR 461.1 including the prohibition of splash loading and limitation of dispensing gasoline only into ORVR motor vehicles.

Paragraph (d)(3) would allow retail mobile fuelers and non-retail mobile fuelers operating with CARB certified Phase I vapor recovery systems and non-vapor recovery components for

dispensing to operate without CARB certified Phase II vapor recovery systems until South Coast AQMD has provided notice that two mobile fuelers equipped with Phase I and Phase II vapor recovery systems have been certified by CARB. This is consistent with Health and Safety Code Section 41954 (g)(3) which prohibits that "Any stricter procedures or performance standards shall not be implemented until at least two systems meeting the stricter performance standards have been certified by the state board."

The owner of operator of a retail mobile fueler or non-retail mobile fueler operating under the interim operating requirements of paragraph (d)(3) is required to:

- Use a mobile fueler equipped with CARB certified Phase I vapor recovery system and non-vapor recovery component for dispensing;
- Dispense gasoline only into ORVR equipped motor vehicles;
- Maintain additional recordkeeping for dispensing operations; and
- Report monthly the additional recordkeeping for dispensing operations to the Executive Officer

Pursuant to paragraph (d)(4), upon notification by South Coast AQMD that CARB has certified two Phase II vapor recovery systems for mobile fuelers, the owner or operator of the mobile fueler equipped with a CARB certified Phase I vapor recovery system and non-vapor recovery components for dispensing is required to start the process to either:

- Replace their mobile fueler with a mobile fueler that is equipped with CARB certified Phase I and Phase II vapor recovery systems and submit a permit application within 60 days of notification for the replacement mobile fueler; or
- Cease operating the mobile fueler that has a non-vapor recovery component within 60 days of notification.

Within 180 days of the issuance of the permit to construct or permit to operate the replacement mobile fueler, whichever is sooner, the owner or operator would be required to surrender the permit to operate and cease operation of the mobile fueler that had been operating under the interim requirements of paragraph (d)(3) for mobile fuelers with a non-vapor recovery component for dispensing gasoline.

Mobile Fueling Cargo Tank Requirements – Subdivision (e)

Subdivision (e) limits the maximum cumulative capacity to 5,000 gallons for cargo tank(s) on a retail mobile fueler or non-retail mobile fueler that dispense gasoline into motor vehicles, the same limit specified in Rule 461. Mobile fuelers that would not operate on a public highway would not be subject to this restriction. This would include mobile fuelers that operate at an airport or recreational racetrack, provided these mobile fuelers were dedicated to those locations only.

Operational Requirements – Subdivision (f)

PR 461.1 requires owners and operators to equip and operate their mobile fuelers specified in subdivision (f) depending on the type of mobile fueler specified in each paragraph of this subdivision.

Paragraph (f)(1) requires the owner or operator to store gasoline containers in a manner that minimizes release of gasoline vapors by keeping containers closed when not in use and proper operations during gasoline transfer and dispensing activities to avoid spillage.

Paragraph (f)(2) prohibits the use of dispensing hose greater than 75 feet in length. The greater the hose length, the greater potential for gasoline vapors created due to the evaporation of gasoline from the hose surface due to hose permeation of the gasoline through the wall of the hose. Gasoline remains inside the hose even between dispensing operations, trapped between the cargo tank and the closed valve at the dispensing nozzle.

Paragraph (f)(3) requires that only the owner or operators may dispense the gasoline from the mobile fueler. Operation by employees trained in the use of the CARB certified dispensing equipment is needed to ensure that required recordkeeping will accurate and complete.

Paragraph (f)(4) requires the owner or operator comply with Out of Order Protocol specified in Appendix A for major defects found by the South Coast AQMD staff.

Paragraph (f)(5) requires the operation and maintenance of CARB certified equipment in accordance with the manufacturers' specifications and CARB Executive Order and associated Installation, Operation, and Maintenance Manuals. Additional requirements focus on keeping the equipment liquid and vapor tight at the seals, valve, caps, hatch, and couplings.

Mobile Fueling Location Requirements – Subdivision (g)

Subdivision (g) specifies the requirements for both the owner or operator of the dispensing location and the owner or operator(s) of retail mobile fuelers. Both the owner or operator of the dispensing location and the owner or operator(s) of retail mobile fuelers are responsible for complying with specific dispensing location requirements.

Paragraphs (g)(1) through (g)(6) apply to the owner or operator of a retail and non-retail mobile fueler, while Paragraph (g)(7) applies to the owner or operator of a dispensing location.

Paragraph (g)(1) requires that each dispensing location must be either registered or permitted with the South Coast AQMD. The dispensing location must list the retail mobile fueling company that will be operating at that specific location in their Rule 222 registration application. An owner or operator of a dispensing location may apply for a permit if a higher monthly throughput limit for the retail mobile fueler is required.

Paragraph (g)(2) prohibits the transfer or dispensing of gasoline at the dispensing location to no more than one retail mobile fueling company during a single calendar month and requires the retail fueling company to be identified in the dispensing location's registration.

If a dispensing location desires to change mobile fueling companies, a new registration must be submitted identifying the starting month of the new mobile fueling company. In this scenario, the current registration would not be valid as of the starting date of the new mobile fueling company or the current registration's expiration date, whichever is sooner.

For example, if a mobile fueling company is operating at a specific location and will no longer be operating at that location mid-month, a second mobile fueling company could not start operating at that same location until the beginning of the following month. This provision is to ensure that multiple mobile fuelers are not operating at a single location where the combined monthly through could create a significant health risk.

The owner or operator of the dispensing location may not allow a mobile fueling company that is not listed on the dispensing locations registration.

Paragraph (g)(3) prohibits the operation of either a Retail Mobile Fueler or Non-Retail Mobile Fueler that is dispensing fuel at a dispensing location that is that is located 1,000 feet or less from

a school from dispensing gasoline during the hours between 7:30 a.m. and 4:30 p.m. on days when the school is in session. The distance between the school and dispensing location is measured from the property line of the dispensing location is measured from the property line of the dispensing location that is closest to the school to the property line of the school that is closest to the dispensing location. As previously discussed, gasoline emissions include benzene emissions which is a carcinogen. Paragraph (g)(3) provides additional protections for school children to minimize potential exposure to benzene emissions. Restricting operations during school hours is consistent with the requirements of Rule 1470 – Requirements for Stationary Diesel-Fueled Internal Combustion and Other Compression Ignition Engines and Rule 1466 – Control of Particulate Emissions from Soils with Toxic Air Contaminants.

Paragraph (g)(4) requires the owner or operator of a retail mobile fueler to have approval by the responsible fire department or other designated fire authority to operate at a dispensing location or written statement that approval is not required before any transfer or dispensing of gasoline is conducted.

Paragraph (g)(5) prohibits the owner or operator of a retail mobile fueler to conduct mobile fueling operations, both transfer and dispensing, on public streets. Based on discussions with various fire authorities, fueling on a public street is also prohibited under the IFC Section 5707[14].

Paragraph (g)(6) requires the owner or operator of a retail mobile fueler to only transfer or dispense gasoline into a container, equipment, or motor vehicle that is located at the same dispensing location as the mobile fueler. For mobile refuelers with a certified non-vapor recovery component, is limited to dispensing only into motor vehicles with ORVR. A retail mobile fueler would be prohibited from having any part of the mobile fueler located at one dispensing location and dispensing or transferring gasoline into a container, equipment, or motor vehicle located at a different dispensing location or a public street.

Paragraph (g)(7) applies to the owner or operator of a dispensing location and prohibits them from allowing the retail mobile fueler operating requires the owner or operator of a dispensing location prohibits:

- More than one owner or operator of a mobile fueler(s) to conduct mobile fueling operations at the dispensing location during the same calendar month;
- A retail mobile fueler to operate at the dispensing location unless listed on the dispensing location's registration or permit to operate;
- A retail mobile fueler to operate at the dispensing location that has a permit to operate a non-retail mobile fueler; and
- If the dispensing location is 1,000 feet or less, prohibits a retail mobile fueler or a non-retail mobile fueler from dispensing gasoline between the hours of 7:30 a.m. and 4:30 p.m. on days when the school is in session.

Labeling Requirements for Mobile Fuelers – Subdivision (h)

Subdivision (h) requires a retail mobile fueler and non-retail mobile fueler to post and maintain signs on both sides of the mobile fueler where the public can report potential air related issues

[14] International Code Council. (2020). 2021 International Fire Code (International Code Council Series) (1st ed.). ICC (distributed by Cengage Learning).

regarding the operation of the mobile fueler to 1-800-CUT SMOG. The signs should be unobstructed and clearly visible to the public.

Installation, Maintenance, and Repair Requirements – Subdivision (i)
Subdivision (i) specifies the installation, maintenance, and repair requirements for CARB certified Phase I and II vapor recovery systems as well as CARB certified non-vapor recovery component for dispensing. The requirements incorporate existing requirements installation, maintenance, and repair requirements from Rule 461. The requirements ensure proper installation, maintenance, and repair by qualified and trained persons.

Self-Compliance Program Requirements – Subdivision (j)
Subdivision (j) specifies the self-compliance program requirements for the owner or operator of a retail mobile fueler or a non-retail mobile fueler. The requirements incorporate existing requirements for self-compliance program from Rule 461. The daily maintenance inspection and periodic compliance inspection are specified in Attachment B – Daily Maintenance Inspection Protocol and Attachment C – Periodic Compliance Inspection Protocol. The protocols were modified for mobile fuelers from existing protocols in Rule 461. Additionally, an owner or operators would not be required to take a class that is approved by the Executive Officer.

Recordkeeping – Subdivision (k)
Recordkeeping requirements for PR 461.1 are largely based on Rule 461 recordkeeping requirements, with the addition of recordkeeping requirements to verify compliance per dispensing location.

Paragraph (k)(1) requires that the owner or operator implement and document the Operation and Maintenance (O&M) manual for CARB certified control equipment.

Paragraph (k)(2) requires the owner or operator of a retail mobile fueler to maintain information for each dispensing location where the retail mobile fueler dispenses gasoline.

Paragraph (k)(3) requires the owner or operator of a retail mobile fueler or non-retail mobile fueler with a permit to operate specifying a throughput limit by dispensing location to maintain daily records by dispensing location. As of October 2021, the mobile fuelers with South Coast AQMD permits to operate have been used for non-retail purposes and have been issued with a throughput limit for each mobile fueler. The mobile fuelers with South Coast AQMD permits to operate that indicate a throughput limit for the mobile fueler and not per dispensing location would not be subject to this requirement. It is anticipated that mobile fueler permits would have throughput limit based on the location and would be subject to this requirement.

Paragraph (k)(4) requires the recording of each transfer of gasoline from and into a retail mobile fueler or a non-retail mobile fueler. The transfer records and dispensing records would allow the verification of gallons transferred into and out of the applicable mobile fueler.

Paragraph (k)(5) requires the owner or operator of a retail mobile fueler to maintain totalizer and inventory reconciliation records. During the rule development, staff became aware of a process to reset the amount of gasoline that was being stored in the cargo tanks of mobile fuelers. This occurred when loading the mobile fueler at a bulk loading facility due to the inventory not being accurately measured as mobile fueler was on an incline.

Paragraph (k)(6) requires the recording of the monthly dispensing throughput for each dispensing location for a retail mobile fueler or a non-retail mobile fueler with a dispensing location throughput limit.

Paragraph (k)(7) requires the recording of the monthly dispensing throughput for each mobile fueler for a non-retail mobile fueler without a monthly throughput limit. The monthly records for the non-retail mobile fueler would be used verify the monthly or annual throughput limit.

Paragraph (k)(8) requires monthly throughput records be maintained for a retail mobile fueler complying with semi-annual testing frequency. This is an additional recordkeeping requirement to the dispensing location throughput requirements.

Paragraph (k)(9) specifies the general recordkeeping required to be maintained for a retail mobile fueler or a non-retail mobile fueler.

Paragraph (k)(10) requires any person who performs installation, inspection, repairs, or testing of a mobile fueler equipped with a CARB certified control equipment to maintain records needed for required reporting in subdivision (m) and provide them to the owner or operator by the end of the day.

Paragraph (k)(11) and (12) require that records be maintained for a minimum of two years unless the mobile fueler is permitted to operate at a Title V facility where it shall be maintained a minimum of five years. Records are required to be provided to the Executive Officer upon request.

Testing – Subdivision (l)
Subdivision (l) specifies the performance and reverification test for CARB certified Phase I and Phase II vapor recovery systems. Periodic testing ensures that the vapor recovery system are performing as certified. The requirements for testing were incorporated from Rule 461 and modified to be specific for mobile fuelers.

Reporting – Subdivision (m)
Subdivision (m) specifies the requirements for reporting monthly records for dispensing listed in subdivision (k) and performance and reverification tests specified in subdivision (l).

Exemptions – Subdivision (n)
Subdivision (n) specifies the exemption from either specific provisions of the rule or the entire rule. There are exemptions that sunset after July 2022 to allow for the delayed implementation for mobile fuelers that were previously exempt under Rule 461 or for adjusting to the new requirements regarding dispensing location. The delayed requirements are synchronized with PAR 219 for permitting and PAR 222 for registrations.

Paragraphs (n)(1) through (n)(2) are exemptions from Rule 461 for the transfer of gasoline for testing purposes and the fueling of The Tournament of Roses floats.

Paragraph (n)(3) and (n)(4) delays the implementation for requirements related to CARB certified Phase I vapor recovery systems or Phase II vapor recovery systems for mobile fuelers that were previously exempt based on the mobile fueler's cumulative capacity or individual cargo tank capacity to allow time to comply with the new requirements.

Paragraph (n)(5) delays implementation for requirements for mobile fueling location requirements in subdivision (g) for the owner or operator of a Retail Mobile Fueler or Non-Retail Mobile Fueler to only operate at a dispensing location with a registration or permit.

Paragraph (n)(6) delays implementation of the requirements in subdivision (g) for dispensing locations. This allows time to comply with the new requirements for the owner or operator of the dispensing location.

CHAPTER 3 - SUMMARY OF PROPOSED AMENDED RULE 461

INTRODUCTION

PROPOSED AMENDED RULE 461

INTRODUCTION

Rule 461 – Gasoline Transfer and Dispensing was originally adopted by South Coast AQMD on January 9, 1976 and most recently amended on April 6, 2012. This rule requires the use of Phase I and Phase II vapor recovery systems to control volatile organic compound (VOC) and toxic emissions from both the loading of gasoline into storage tanks and the dispensing of gasoline into motor vehicle fuel tanks at both stationary and mobile gasoline transfer and gasoline dispensing facilities.

In 2012, provisions were adopted to exempt non-retail gasoline dispensing facilities fueling only fleet motor vehicles equipped with ORVR from upgrading their existing Phase II pre-EVR dispensing equipment to a Phase II enhanced vapor recovery (EVR) system by the April 1, 2012 deadline. This was allowed because non-retail facilities:

- Can verify if the motor vehicle they own is equipped with ORVR
- Dispense less gasoline than a retail gasoline dispensing facility
- Have direct control over the motor vehicles they fuel

Instead of upgrading to the Phase II EVR, non-retail facilities had the option to block of their CARB certified Phase II nozzle and fuel fleet motor vehicles equipped with ORVR.

Need for Proposed Amended Rule 461

As previously discussed, CARB certified Phase I and II vapor recovery systems are effective in reducing emissions from gasoline transfer and dispensing operations. However, owner or operators of mobile fuelers subject to Rule 461 would also be subject to the requirements of PR 461.1. PR 461.1 builds on the requirements for mobile fuelers found in Rule 461. This would cause duplicate requirements for most mobile fuelers, except the previously unregulated models. In order to avoid duplicate requirements and to provide clarity between stationary and mobile gasoline operations, PAR 461 will remove definitions and provisions for mobile fuelers. In addition, the process for alternative compliance with Phase II requirements will be amended to allow existing facilities to continue using equipment from an older CARB Executive Order while new or modified facilities would be required to use equipment specified in the most recent CARB Executive Order.

Overview of Proposed Amended Rule 461

Proposed Rule 461.1 (PR 461.1) – Gasoline Transfer and Dispensing for Mobile Fueling Operations will reduce emissions of VOC and Toxic Air Contaminant (TAC) emissions from mobile fueling operations. Proposed Amended Rule 461's (PAR 461) objective is to remove the specific requirements for mobile fuelers from Rule 461 as PR 461.1 will address mobile fuelers VOC and TAC emissions. In addition, PAR 461 allows the owner or operator of a stationary non-retail gasoline dispensing facility with modified dispensing equipment used in lieu of complying with Phase II requirements to continue using these modified components until the permit to operate is modified, at which time those modified components must be replaced with hose and nozzle components from the most recent CARB Executive Order.

PROPOSED AMENDED RULE 461

Applicability – Subdivision (a)

PAR 461 modifies the applicability by removing references to mobile fuelers.

Definitions – Subdivision (b)
PAR 461 deletes the following terms as they are no longer needed or modifies the term as explained below. Please refer to PAR 461 for actual definitions.

- COAXIAL FILL TUBE (deleted)
- GASOLINE TRANSFER AND DISPENSING FACILITY (modified)
- INSTALLER/CONTRACTOR (modified)
- MOBILE FUELER (deleted)
- VAPOR RECOVERY SYSTEM (modified)

GASOLINE TRANSFER AND DISPENSING FACILITY has been modified to remove reference to a mobile system as PAR 461 will no longer apply to mobile fuelers.

INSTALLER/CONTRACTOR has been modified from "gasoline dispensing facility" to "gasoline transfer and dispensing facility" to be consistent with that defined term.

VAPOR RECOVERY SYSTEM has been modified to remove reference to mobile fuelers as well as remove references to components no longer used.

Requirements – Subdivision (c)
PAR 461 removes requirements and references to mobile fuelers as those requirements are moved to PR 461.1, removes requirements related to COAXIAL FILL TUBES as they are no longer used, and adds railroad tank car to be consistent with rule applicability.

PR 461 removes the earlier process in paragraph (c)(4) that allowed a facility to use modified components from a CARB certified "vapor recovery system" in lieu of complying with Phase II requirements of paragraph (c)(2). Rule 461 allowed this as there was not a CARB certified system at the time compatible with ORVR equipped cars.

Subparagraph (c)(4)(A) allows those facilities to continue use of those modified components. However, if the owner or operator modifies the permit to operate associated with the modified components, subparagraph (c)(4)(B) requires the owner or operator to replace the modified components with components from the most recent CARB certified Executive Order NVR-1 (as of October 2021 was NVR-1-F[15]).

An owner or operator applying for a new permit to construct would be required to use components from the most recent CARB certified Executive Order NVR-1. Stationary non-retail gasoline dispensing facilities, without Phase 2 equipment, would continue to be allowed to only dispense gasoline into ORVR equipped motor vehicles, except those used in responding to an emergency.

Testing, Reporting and Recordkeeping Requirements – Subdivision (e)
PAR 461 removes references and requirements for mobile fuelers as requirements are moved to PR 461.1. PAR 461 updates how the owner or operator are required to submit reporting documents.

Rule 1402 Inventory Requirements – Subdivision (h)
PAR 461 updates a reference to Rule 1402 – Control of Toxic Air Contaminants from Existing Sources to the correct subparagraph because of a subsequent amendment to Rule 1402.

[15] CARB. (2021, February 18). *EXECUTIVE ORDER NVR-1-F*. California Air Resources Board. https://arb.ca.gov/vapor/eos/eo-nvr1/eo_nvr1f.pdf

CHAPTER 4: SUMMARY OF PROPOSED AMENDED RULES 219 AND 222

OVERVIEW OF PROPOSED AMENDED RULES 219 AND 222

Proposed Rule 461.1 (PR 461.1) – Gasoline Transfer and Dispensing for Mobile Fueling Operations will reduce emissions of VOC and toxic emissions from mobile fueling operations. PR 461.1 will lower the size threshold for mobile fuelers subject to specific requirements in the rule. Retail Mobile Fuelers will now be subject if the cumulative capacity of all cargo tanks exceeds 10 gallons while Non-Retail Mobile Fuelers will now be subject if the cumulative capacity of all cargo tanks exceeds 120 gallons. In addition, PR 461.1 will require the owner or operator of a dispensing location to register a location where a Retail Mobile Fueler dispenses gasoline. PAR 219 will modify and include exemptions in Storage and Transfer Equipment in subdivision (m).

Rule 222 – Filing Requirements for Specific Emission Sources Not Requiring a Written Permit Pursuant to Regulation II requires owners or operators of specified emission sources to submit information regarding the source that would not be subject to Rule 201 – Permit to Construct. PR 461.1 will require the owner or operator of dispensing location not located at a Title V facility to register pursuant to Rule 222 before any Retail Mobile Fueler is allowed to dispense gasoline at the dispensing location. There is a need to collect data to estimate emissions from mobile fueling operations at dispensing locations to ensure that these operations are not exceeding health risk thresholds that would pose a health risk to the nearest sensitive receptor.

Need for Proposed Amended Rule 219 and 222

Amendments to Rule 219 and Rule 222 are needed to change equipment that was previously exempt and to align both with PR 461.1. Mobile fueling equipment with either less than a total cumulative capacity 251 gallons or an individual tank less than 120 gallons was exempt under Rule 219. However, if any of this equipment has Phase I or Phase II vapor recovery system, the mobile fueler would require a permit. Amendments to Rule 222 are needed to establish registration requirements for a dispensing location where retail mobile fuelers are dispensing gasoline. This ensures that multiple mobile fueler companies are not creating a health risk above thresholds under Rule 1401.

PROPOSED AMENDED RULE 219

Storage and Transfer Equipment – Subdivision (m)

PAR 219 removes mobile fuelers from the existing exemption in paragraph (m)(9) in order to add two separate exemptions for retail and non-retail mobile fuelers in paragraphs (m)(10) and (m)(11) with the new lower cumulative capacity mobile fueler thresholds from PR 461.1.

Paragraph (m)(13) exempts dispensing locations where no retail mobile fuelers are dispensing gasoline.

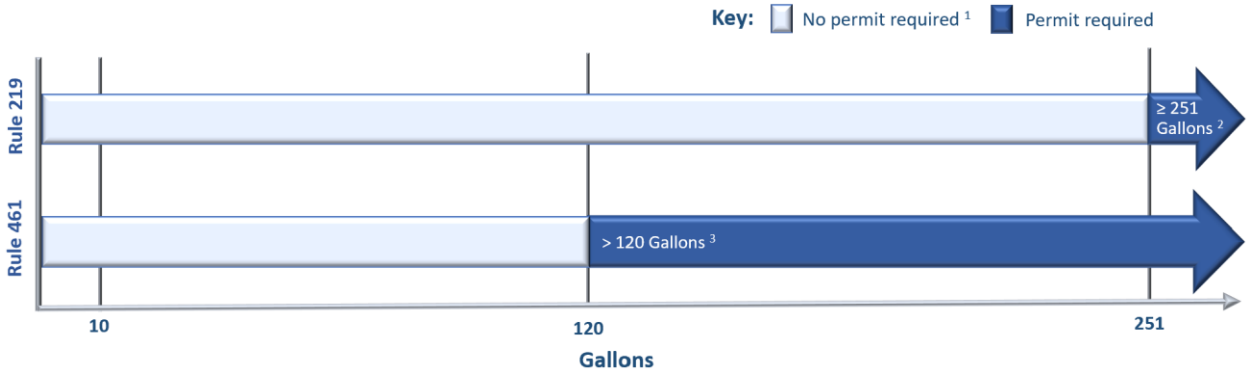
Paragraph (m)(14) exempts dispensing locations provided the dispensing location is registered pursuant to Rule 222 and is not located at a Title V facility.

Paragraphs (m)(15) and (m)(16) adds provisions to exempt mobile fuelers previously exempt, and dispensing locations so operators have time to apply and obtain a permit to operate or obtain the dispensing location registered.

Figure 4-1 is a graphic representation of the current permitting requirements for mobile fuelers that fuel into motor vehicles. A permit to operate would be required for mobile fuelers with a tank capacity greater than 120 gallons as it would be required to be equipped with vapor recovery

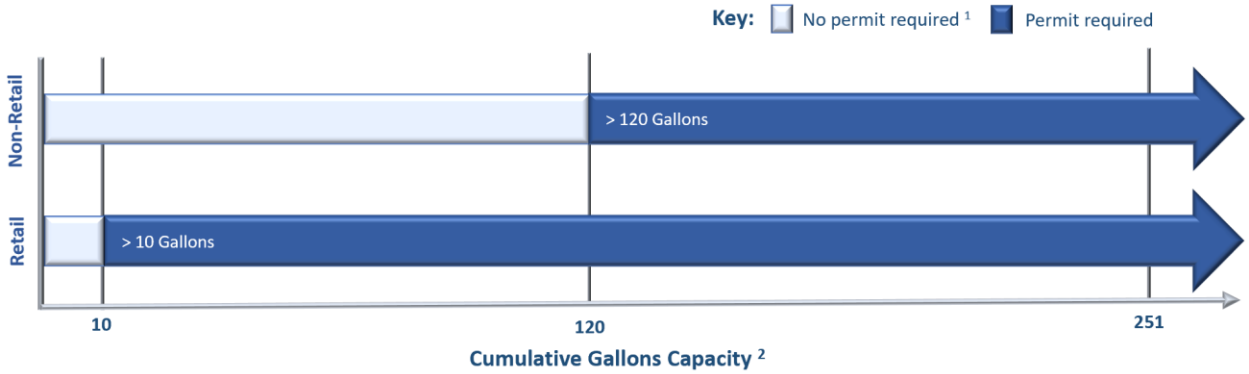
pursuant to Rule 461. Figure 4-2 is a graphic representation of proposed Rule 219 concepts for mobile fuelers.

Figure 4-1
Current Rule 219 and Rule 461 Permitting of Mobile Fuelers



[1] If a vapor recovery system is installed on mobile fueler, a permit is required
[2] Cumulative capacity
[3] Tank capacity

Figure 4-2
Proposed Rule 219 Concept for Permitting of Mobile Fuelers



[1] If a vapor recovery system is installed on mobile fueler, a permit is required
[2] Excluding one portable fuel container less than 5 gallons

PROPOSED AMENDED RULE 222

Applicability – Subdivision (b)

PAR 222 adds a provision that requires the owner or operator of a dispensing location to register the dispensing location where a retail mobile fueler dispenses gasoline as long as the dispensing location is not located at a Title V facility. Regulation XXX federally regulated facilities must list and evaluate all emissions, including gasoline vapors, in the Title V facility permit. A Title V facility is a facility that has been issued a permit pursuant to Title V of the Clean Air Act. Pursuant to Code of Federal Regulations title 40, chapter 1, subchapter C, part 70, § 70.5 (c), a Title V permit must include regulated air pollutants emitted from any emissions unit. A mobile fueler is a regulated emission unit and, if it is operated at any Title V facility, is required to be included in the facility's application for a Title V permit.

Definitions – Subdivision (c)

PAR 222 adds the following definitions for clarity to PAR 222 Table 1 to require that owner or operator is required to submit a registration if gasoline is dispensed from a retail mobile fueler.

- Dispensing Location
- Retail Mobile Fueler

CHAPTER 5 – IMPACT ASSESSMENT

AFFECTED SOURCES

EMISSIONS IMPACT

CALIFORNIA ENVIRONMENTAL QUALITY ACT

SOCIOECONOMIC IMPACT ASSESSMENT

DRAFT FINDINGS UNDER CALIFORNIA HEALTH AND SAFETY CODE SECTION 40727

COMPARATIVE ANALYSIS

AFFECTED SOURCES

PR 461.1 applies to the owner or operator of a mobile fueler or a dispensing location. Additionally, it applies to a person who conducts any test for a mobile fueler; installs, repairs, maintains, supplies, sells, or offers for sale components of a mobile fueler; or manufacturers CARB certified control equipment or the associated components thereof. Staff conducted a survey of mobile fueling operations to collect information to accurately account for various types of operations, properly assess potential impacts, and to help inform the rulemaking efforts for mobile fueling operations. A review of the surveys revealed that mobile fuelers are almost exclusively used for non-retail fueling and are primarily used to fuel stationary equipment, off-road equipment, aircraft, and landscape equipment, to fill portable fuel containers, and for emergency fueling.

There are approximately 80 mobile fuelers at 38 facilities expected to be impacted by PR 461.1 and PAR 461, approximately 80 mobile fuelers and approximately 70 dispensing locations expected to be impacted by PAR 219, approximately 70 dispensing locations expected to be impacted by PAR 222. The number of affected sources were identified by using different methods based on the type of source.

- The permitted universe of mobile fuelers was identified by reviewing South Coast AQMD gasoline storage and dispensing permits
- The potential unpermitted universe of mobile fuelers was estimated from:
  - Survey responses
  - Internet searches
  - Information provided by stakeholders
- Dispensing locations that allow retail mobile fueling were estimated from a review of operational records

As discussed in Chapter 1, staff has observed many indicators that the emerging mobile fueling industry is expanding. The survey responses are not reflective of staff's observations. Staff reached out to companies identified as providing MFOD services via email, telephone, and site visits, but were only able to receive operational information from two companies with retail mobile fueling. Regardless of an operator's decision to reply to the informational survey, upon adoption or amendment of the proposed rules for mobile fueling, operators that meet the applicability provisions are subject to the requirements of Proposed Rule 461.1 and Proposed Amended Rule 219.

EMISSIONS IMPACT

Staff anticipates that implementation of these regulations will result in emission reductions from previously unregulated retail mobile fuelers with cumulative capacities of 10 to 251 gallons of gasoline and from gasoline mobile fuelers that do not dispense into motor vehicles. As discussed in Chapter 1, due to the discontinued manufacturing of a part necessary for proper operation of the only mobile fueler with a CARB certified Phase II vapor recovery system, no new mobile fuelers are available with a CARB certified Phase II vapor recovery system at this time. PR 461.1 will temporarily allow mobile fuelers that were required by Rule 461 to be equipped with a CARB certified Phase II vapor recovery system to operate with a CARB certified non-Phase II vapor recovery component until two CARB certified Phase II vapor recovery systems are available for a mobile fueler. Because a CARB certified Phase II vapor recovery system will be required when two Phase II vapor recovery systems have been certified by CARB, any emission increase will be limited to new mobile fuelers that dispense into motor vehicles and will be temporary. Estimating

the emission reductions from implementation of these rules is difficult because staff has limited information available for this emerging industry and is proposing PR 461.1 to address regulatory gap.

CALIFORNIA ENVIRONMENTAL QUALITY ACT

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 reviewing the proposed project to determine if it will result in any potential adverse environmental impacts. Appropriate CEQA documentation will be prepared based on the analysis.

SOCIOECONOMIC IMPACT ASSESSMENT

A socioeconomic impact assessment will be conducted and released for public review and comment at least 30 days prior to the South Coast AQMD Governing Board Hearing which is anticipated to be heard on January 7, 2022.

DRAFT FINDINGS UNDER CALIFORNIA HEALTH AND SAFETY CODE SECTION 40727

Requirements to Make Findings

California Health and Safety Code Section 40727 requires that prior to adopting, amending, or repealing a rule or regulation, the South Coast AQMD Governing Board shall 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.

Necessity

PR 461.1, PAR 461, PAR, 219, and PAR 222 are needed to regulate the emerging industry of retail mobile fuelers with cumulative capacities of 10 to 251 gallons of gasoline and to allow retail mobile fuelers to operate provided the mobile fueler has been certified by CARB. Permitting and requirements for certified equipment for the transfer and dispensing of gasoline are needed be aligned to eliminate conflicts with permitting thresholds and requirements for retail mobile fueling. Registration requirements for locations where retail mobile fueling is needed to ensure requirements for retail mobile fueling can be enforced and that health risk estimates at these sites do not exceed thresholds in Rule 1401.

Authority

The South Coast AQMD Governing Board has authority to adopt PR 461.1, PAR 461, PAR, 219, and PAR 222 pursuant to the California Health and Safety Code Sections California Health and Safety Code Sections 39002, 39650 et. seq., 39656 et seq., 40000, 40001, 40440, 40441, 40702, 40725 through 40728, 41508, 41510, 41700, 41511, and 42300 et seq.

Clarity

PR 461.1, PAR 461, PAR, 219, and PAR 222 are written or displayed so that its meaning can be easily understood by the persons directly affected by it.

Consistency

PR 461.1, PAR 461, PAR, 219, and PAR 222 is in harmony with and not in conflict with or contradictory to, existing statutes, court decisions, or state or federal regulations.

Non-Duplication

PR 461.1, PAR 461, PAR, 219, and PAR 222 will not impose the same requirements as or in conflict with any existing state or federal regulations. Proposed amendments to Rule 461 will ensure provisions for mobile fueling are not duplicative in PR 461.1. The proposed amended rule is necessary and proper to execute the powers and duties granted to, and imposed upon, the South Coast AQMD.

Reference

By adopting PR 461.1, PAR 461, PAR, 219, and PAR 222, the South Coast AQMD Governing Board will be implementing, interpreting or making specific the provisions of the California Health and Safety Code Section 39656 et seq. (toxic air contaminants), 40000 (non-vehicular air pollution), 40001 (rules to achieve and maintain ambient air quality standards), 40440 (adopt regulation to carry out plan), 40702 (adopt regulations and execute duties), 41700 (nuisance), 41510 (right of entry), 41511 (rules to require source to determine emissions), 41950 (stationary gasoline tanks), 41954 (gasoline marketing operation performance standards), 41964 (enhanced vapor recovery Phase II upgrade), 42300 et seq. (permitting), 42303 (requests for information), Federal Clean Air Act Section 112 (Hazardous Air Pollutants), and Federal Clean Air Act Section 116 (Retention of State authority).

COMPARATIVE ANALYSIS

California Health and Safety Code Section 40727.2 requires a comparative analysis of the proposed rule requirements with those of any Federal or South Coast AQMD rules and regulations applicable to the same equipment or source category. The comparative analysis will be conducted and released in the draft staff report at least 30 days prior to the South Coast AQMD Governing Board Hearing on PR 461.1, PAR 461, PAR, 219, and PAR 222, which is anticipated to be held on January 7, 2021.