SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

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

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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. This rulemaking seeks to prevent emissions from previously exempt equipment and ensures consistency for equipment used in mobile fueling operations.

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 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 and PAR 461.

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 (meaning it has a 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 contaminants associated with gasoline vapors are benzene, ethyl benzene and naphthalene which are 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]. The table below summarizes the cancer and noncancer acute health values for benzene, ethyl benzene, and naphthalene 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

Chemical	Cancer Inhalation Unit Risk $(\mu g/m^3)^{-1}$
Benzene	0.000029
Ethylbenzene	0.0000025
Naphthalene	0.000034

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 adopts procedures and performance standards for systems for the control of gasoline vapor emissions and then certifies the equipment in accordance with those procedures and performance standards. 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 several 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.

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[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.

[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

- Pre-application process involves the applicant:
    1. Requesting a research and development site approval, referred to as an "R&D letter"
    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

To date, CARB has certified three mobile fuelers:

1) On October 6, 1995, CARB issued Executive Order G-70-166 for the Certification of the Sacramento Municipal Utility District Mobile Motor Vehicle Fueler Phase II Vacuum Assist Vapor Recovery System.
2) On December 9, 1999, CARB issued Executive Order G-70-193 for Certification of the Hill-Vac Vapor Recovery System for Cargo Tank Motor Vehicle Fueling Systems (referred to herein as Model 1).
3) On February 19, 2021, 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 (referred to herein as Model 2).

The vapor recovery systems on these mobile fuelers are discussed further below. Staff research indicates that only two of the mobile fuelers certified by CARB have operated in the South Coast Air Basin: CARB Executive Order G-70-193 (Model 1) and CARB Executive Order VR-601 (Model 2).[6]

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 requires 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 to not use or operate 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. 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 recovery systems are required to have a permit pursuant to Rule 203.

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

[6] Staff research indicates the mobile fueler certified pursuant to CARB Executive Order G-70-166 has not operated in South Coast Air Basin and is not available for purchase.

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. Equipment on mobile fuelers used to transfer or dispense gasoline emits air contaminants and is not exempt. For gasoline storage and transfer, Rule 219 also 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) further 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 also not exempt through Rule 219. If the mobile fueler 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. Mobile fuelers with a cumulative capacity of less than 251 gallons, or using tanks with a capacity of less than 120 gallons, and dispensing gasoline without controls are a regulatory gap this rule making seeks to address.

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 lines 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 in use in the District 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.[7] 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 three mobile fuelers equipped, all with a Phase I vapor recovery system. For the dispensing of gasoline, only two of the mobile fuelers CARB has certified are equipped with a Phase II vapor recovery system as discussed later in Chapter 1.[8] Rule 461 has required Phase II vapor recovery systems since 1995 for both stationary gasoline dispensing facilities and mobile fuelers that dispense gasoline. However, as neither mobile fuelers equipped with a Phase II vapor recovery system are available for purchase, PR 461.1 will not require that mobile fuelers must be certified with a Phase II vapor recovery system until 60 months after at least two mobile fuelers with Phase II vapor recovery systems have been certified by CARB and notification form the Executive Officer is issued.

BARCT requirements do not apply to gasoline vapor recovery rules. 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 has not been conducted for PR 461.1, nor is a BARCT limit established. 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, PR 461.1 is being adopted following the

[7] 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.

[8] 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

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 PR 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. If anything, the proposal is making the existing standard less stringent until 60 months after notification from the Executive Officer is issued indicating at least two mobile fuelers equipped with Phase II has been certified by CARB. 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.

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, including knowing the location of dispensing activities and verifying compliance.

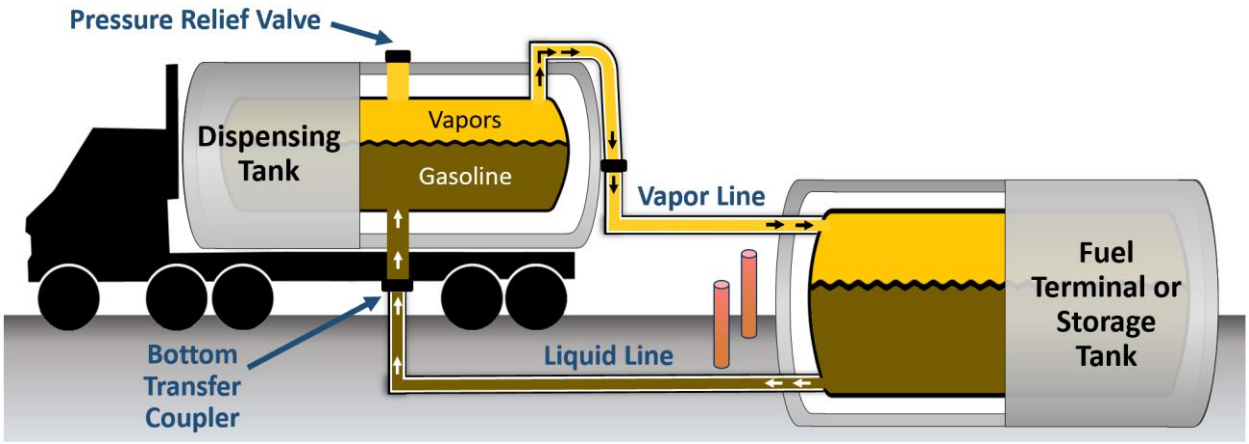
The discussion below focuses on the gasoline transfer and dispensing operations associated with control equipment on mobile fuelers and the equipment that mobile fuelers dispense gasoline into, typically a motor vehicle.

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[9] (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)

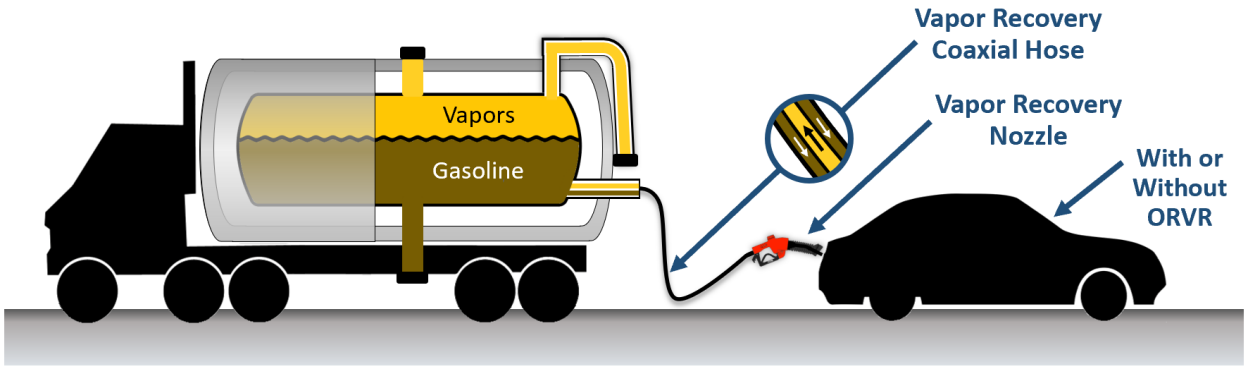
[9] CARB. (2014b, November 7). *CP-204 – Certification Procedure for Vapor Recovery Systems of Cargo Tanks*. California Air Resources Board. Retrieved October 20, 2021, from https://ww2.arb.ca.gov/sites/default/files/2020-02/CP-204_Amended_11.07.2014r.pdf

- 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

A 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 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



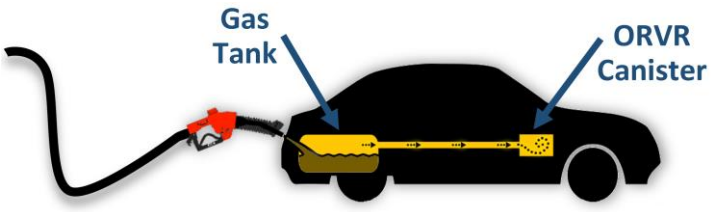
Mobile fueler Phase II vapor recovery systems are CARB certified through CARB's Vapor Recovery Certification Procedure CP-205 - Certification Procedure for Vapor Recovery Systems of Novel Facilities (CP-205). CP-205 requires the Phase II vapor recovery system efficiency be determined using CARB's Vapor 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[10]. 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.

Figure 1-3
Onboard Refueling Vapor Recovery



CARB Executive Orders for Mobile Fuelers

As noted above, the three mobile fuelers certified by CARB are:

4) CARB Executive Order G-70-166 for the Certification of the Sacramento Municipal Utility District Mobile Motor Vehicle Fueler Phase II Vacuum Assist Vapor Recovery System
5) CARB Executive Order G-70-193 for Certification of the Hill-Vac Vapor Recovery System for Cargo Tank Motor Vehicle Fueling Systems[8] (referred to herein as Model 1) and
6) 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[11] (referred to herein as Model 2)

CARB Certification of the Sacramento Municipal Utility District Mobile Motor Vehicle Fueler Phase II Vacuum Assist Vapor Recovery System

On October 6, 1995, CARB Executive Order G-70-166 for Certification of the Sacramento Municipal Utility District Mobile Motor Vehicle Fueler Phase II Vacuum Assist Vapor Recovery System was issued. The mobile fueler was equipped with pre-EVR Phase I and Phase II vapor recovery systems that was certified pursuant to Draft Vapor Recovery Certification Procedure CP-205. The Phase II vapor recovery system also includes requirements designed to prevent absorption of sunlight by the cargo tank and temperature fluctuations that included cargo tank to be insulated with two inches of polyurethane, white in color, and maintained in good operating condition.

Additionally, the Phase II vapor recovery system was required to be equipped with cargo tank turbine pump with a built-in siphon that is connected to the vapor return line liquid pump, pressure gauges, and pressure/vacuum valve. CARB Executive Order G-70-166 applied to the Sacramento Municipal Utility District Mobile Motor Vehicle Fueler with License Plate Number E751905.

[10] 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

[11] 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

Based on conversations with the manufacturer, this mobile fueler is no longer operated. This CARB Executive Order was specific to Sacramento Municipal Utility District and not commercially available.

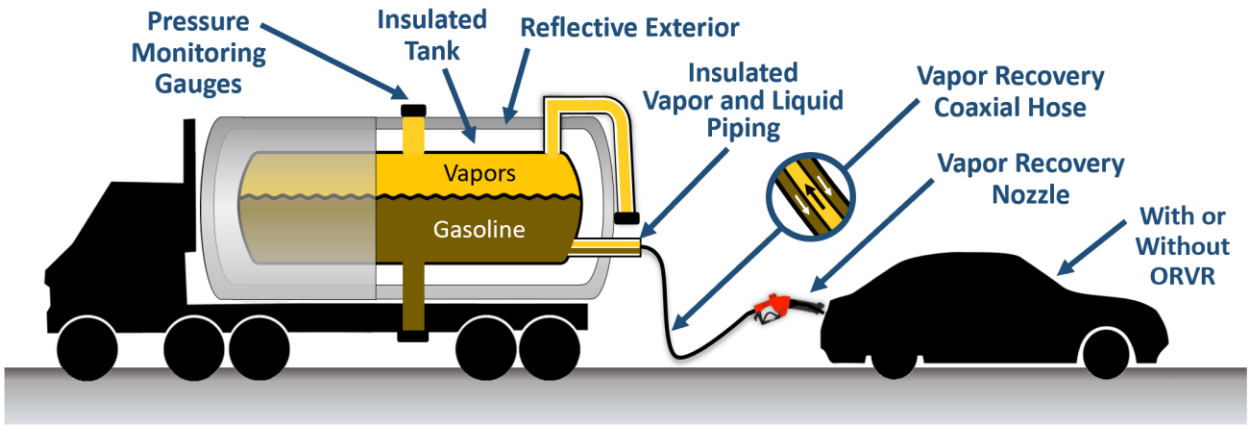
CARB Certification of the Hill-Vac Vapor Recovery System for Cargo Tank Motor Vehicle Fueling Systems

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 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 December 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 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. CARB and South Coast AQMD agree that additional benefits are provided when both ORVR and Phase II and deployed but have not reached consensus on quantifying the added benefits.

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 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[12] and entertainment[13] 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 as required by Rule 461. On February 19, 2021, Booster Fuels received final certification of their model with CARB Executive Order VR-601-A[14]. 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 in 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 AQMD staff has expended significant resources verifying ORVR status, determining the amount of fuel transferred into a mobile fueler is representative of the amount of the fuel dispensed, and surveilling to insure 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

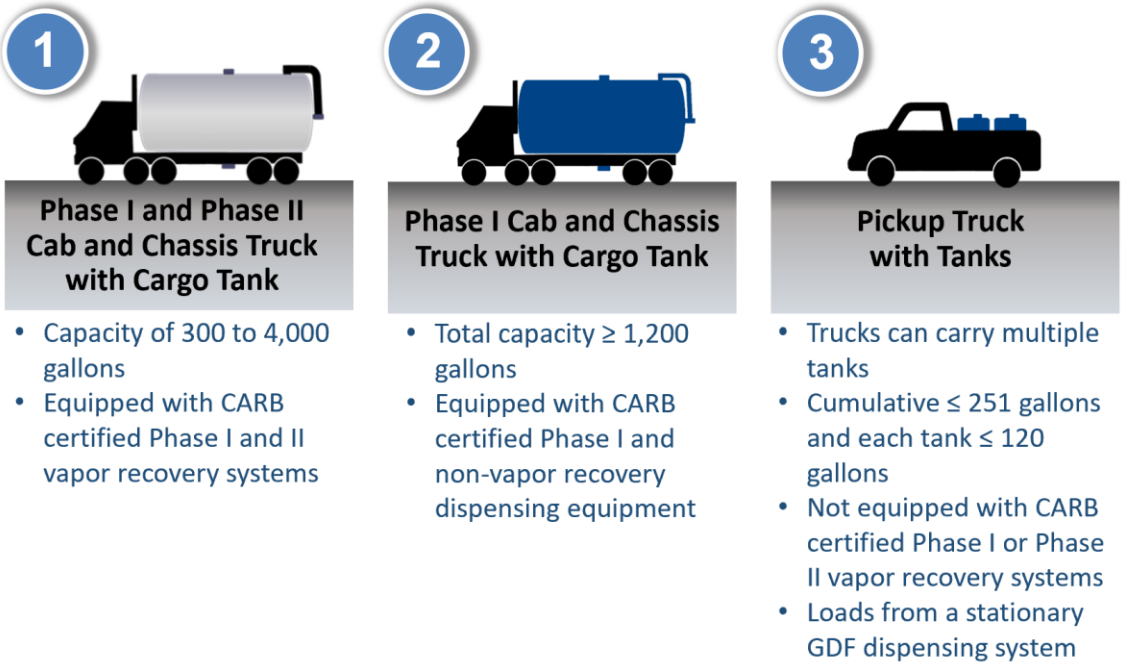
As part of the rule making process, staff distributed a survey of mobile fueling operations to collect information to accurately account for various types of operations, properly assess potential impacts, and to help inform the rulemaking efforts for mobile fueling operations. Based on the survey results, 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. Staff research indicates three models of mobile fuelers operate in the South Coast Basin, including pickup trucks with tanks (Model 3), which is the regulatory gap this rule seeks to address. Figure 1-5 illustrates these three models of mobile fuelers.

[12] 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

[13] 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/

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

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 are being amended to modify permitting requirements for previously exempt mobile fuelers.

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, or PAR 219. The number of Model 3 mobile fuelers (the pickup truck with tanks) operating in the South Coast Basin is unknown but staff research indicates multiple companies have utilized this type of mobile fueler in recent years.

PUBLIC PROCESS

Development of PR 461.1, PAR 461, and PAR 219 is being conducted through a public process. A PR 461.1, PAR 461, 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. Staff has held nine 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, September 22, 2021, November 9, 2021, and December 2, 2021. A Public Workshop was 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. Persons conducting testing, installations, maintenance, and sellers and manufacturers of CARB certified equipment for mobile fuelers would also be subject to PR 461.1.

As discussed in Chapter 1, as of December 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 and notice is issued by the Executive Officer.

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 so as to not exceed health risk thresholds at dispensing locations. This will be accomplished using throughput limits and a risk assessment during the permit evaluation process to allow for higher throughputs.

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 mobile fuelers equipped with Phase II vapor recovery systems are certified by CARB and the Executive Officer has issued a notification.

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. Additional health protective measures based on nearest sensitive receptors would be incorporated during the permit evaluation process that will include a risk assessment based on a dispensing location.

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. 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 6.6 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 6.6 gallons is for the dispensing of gasoline into 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 to dispense enough gasoline into the motor vehicle of a stranded motorist in order to reach a nearby gas station. Portable fuel containers with a capacity up to 6.6 gallons was excluded to be consistent with the definition of portable fuel containers in ASTM F852-19 – Standard Specification for Portable Gasoline, Kerosene, and Diesel Containers for Consumer Use.

- 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 are 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 are 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.

Paragraphs (d)(1) requires all transfers into and from a mobile fueler 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 demonstrate compliance with performance standards.

Paragraph (d)(2) prohibits mobile fuelers from fueling into motor vehicles unless the mobile fueler is equipped with a CARB certified Phase II vapor recovery system. Additionally, mobile fuelers are prohibited from dispensing into motor vehicles unless CARB has issued a single Executive Order certifying the Mobile Fueler with both CARB certified Phase I and Phase II vapor recovery systems, unless the mobile fueler is complying with paragraph (d)(3). As discussed in Chapter 1, CARB certifies systems and equipment, but has issued Executive Orders for an entire mobile fueler. This ensures that all vapor recovery equipped on the mobile fueler is evaluated and not individual systems or components, as individual components may not perform as intended. Additionally, CARB may add requirements to a mobile fueling Executive Order to ensure that the mobile fueler would achieve the performance standard. This can include insulation, pressure limitations, or operational restrictions proscribing the type of motor vehicle that can receive fuel from the mobile fueler. These additional requirements are unknown during the initial step of research and development site approval and are not typically included in the "R&D letter" issued by CARB. Issuance of a single Executive Order certifying the Mobile Fueler with both CARB certified Phase I and Phase II vapor recovery systems enables the District to rely on CARB's expertise and ensures that a mobile fueler as an entire system meets CARB's performance standards.

Interim Provisions for Non-Vapor Recovery Component for Gasoline Dispensing

Paragraph (d)(3) provides an alternative interim option 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, provided CARB issued an Executive Order certifying the mobile fueler.

The Executive Order would identify the control equipment for both transferring and dispensing. As discussed in Chapter 1, Model 1 represents the one CARB certified Phase I and Phase II vapor recovery system for mobile fuelers. Model 1 operates in the District, but is not currently available for new purchases and is undergoing a re-certification process. As a result, there is no mobile fuelers with CARB certified Phase I and Phase II vapor recovery system that are 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 December 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) provides an interim allowance for 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 after 60 months the Executive Officer has issued a notification that two mobile fuelers equipped with Phase I and Phase II vapor recovery systems have been certified by CARB. As discussed in Chapter 1, there were two mobile fuelers equipped with Phase I and Phase II vapor recovery systems that have been certified by CARB. Therefore, Health and Safety Code Section 41954 (g)(3) which provides 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," has been satisfied and South Coast AQMD has the authority to require Phase I and Phase II vapor recovery system for mobile fuelers. As described above, one system is subject to recertification and the other system is not available for purchase. Accordingly, due to the lack of commercial availability of both certified mobile fuelers, PR 461.1 temporarily allows the use of mobile fuelers equipped with non-vapor recovery component for dispensing for 60 months following issuance of a notification by the Executive Officer as required in paragraph (d)(4).

The owner of operator of a retail mobile fueler or non-retail mobile fueler operating under the interim operating requirements of paragraph (d)(4) 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 issuance of notification by South Coast AQMD's Executive Officer that CARB has certified at least two mobile fuelers equipped with Phase II vapor recovery system, 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 would be required to cease operating the CARB certified mobile fueler equipped with a Phase I vapor recovery system and non-vapor recovery component after 60 months. The 60 months following issuance of notification

provides sufficient time for the owner or operator to purchase a replacement CARB certified mobile fueler equipped with Phase I and Phase II vapor recovery systems, submit applications for the new mobile fueler, and receive delivery of the new mobile fueler. For the purpose of California Health and Safety Code § 41954 (g)(3), CARB Executive Orders G-70-166 (issued in 1995) and G-70-193 (issued in 1999) established the authority to require the existing Phase II vapor recovery system performance standard. However, staff research indicates that the mobile fueler with CARB Executive Order G-70-166 is not currently in use and has never operated in the South Coast AQMD's jurisdiction. Therefore, staff is excluding this CARB certified mobile fueler from the total count of CARB certified mobile fuelers only for the purposes of (d)(4).

Mobile Fueling Cargo Tank Requirements – Subdivision (e)

Paragraph (e)(1) 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.

Paragraph (e)(2) requires that each retail mobile fueler is equipped with a non-resettable totalizer that accurately registers the quantity of gasoline dispensed, except gasoline dispensed from a single portable fuel container up to 6.6 gallons. A non-resettable totalizer is an element interfaced with the measuring or weighing element that indicates the cumulative registration of the measured quantity with no means to return to zero.[15]

Paragraph (e)(3) prohibits more than one portable fuel container to be on-board a retail mobile fueler or a non-retail mobile fueler.

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 be 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.

[15] https://www.cdfa.ca.gov/dms/programs/Publications/FRM/2018/3-2018_FRM_Chapter%201_Part_3_3.30-3.40.pdf

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 the owner or operator of the retail and non-retail mobile fuelers when operating at a dispensing location and other locations.

Paragraph (g)(1) requires the owner or operator of a retail mobile fueler submit the documentation required in paragraph (m)(1) prior to any transfer or dispensing operation for the dispensing location.

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.

If a dispensing location desires to change mobile fueling companies, the new retail mobile fueler must submit documentation pursuant to paragraph (m)(1).

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.

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. The approval letter or written statement from the fire department or fire authority must identify the dispensing location where the owner or operator of the mobile fueler may operate. The document may specify a larger geographical area than the dispensing location, however the owner or operator of the mobile fueler would still be limited to the dispensing location listed in the permit to operate.

Paragraph (g)(5) prohibits the owner or operator of a retail or non-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[16]. Non-retail mobile fuelers may fuel on public streets provided they are dispensing into a motor vehicle or equipment that is responding to an emergency or to maintain public infrastructure. Records of dispensing on a public street shall be maintained pursuant to (k)(9) and reported pursuant to (m)(2). PR 461.1 defines emergency as any sudden, unexpected occurrence involving a clear and imminent danger, demanding immediate action to prevent or mitigate the loss of, or damage to, life, health, property, or essential public services caused by either air pollution, fire, flood, storm, epidemic, riot, drought, cyberterrorism, sudden and severe energy shortage, plant or animal infestation or disease, the Governor's warning of an earthquake or volcanic prediction, or an earthquake.

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. Mobile fuelers with a certified non-vapor recovery component are limited to dispensing only into motor vehicles equipped 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 on a public street.

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 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 for 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 that applied to retail gasoline transfer and dispensing facilities. 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, a person who conducts a Performance or Reverification test is required by subdivision (l) to complete the South Coast AQMD's Tester Orientation class, but the owner or operator of mobile fueler is not required to take a class.

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.

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

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. This would also include documentation from the owner or operator of the dispensing location that the mobile fueling company would be the only mobile fueling company operating a retail mobile fueler at the dispensing location.

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 December 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 limits 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) requires the owner or operator of a retail mobile fueler or a non-retail mobile fuelers that dispenses gasoline to maintain records of when gasoline was dispensed on a public street maintain. These records include the type of emergency or the type of public infrastructure being maintained, the contact information for the responsible person of the organization that authorized the dispensing into the motor vehicle or equipment, and general gasoline dispensing information.

Paragraph (k)(11) 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)(12) and (13) 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)
Paragraph (m)(1) requires that dispensing location information be electronically submitted in a format:

- No less than 48 hours prior to initially dispensing at the dispensing location where records required in (k)(2) have not been submitted for the dispensing location
- No less than 48 hours prior to dispensing at the dispensing location where a different mobile fueling company dispensed gasoline during a prior calendar month

This ensures that the Executive Officer is aware of any new dispensing location and if there is a change in mobile fueling company at a dispensing location.

Subdivision (m)(2) requires that the owner or operator of a retail mobile fueler or a non-retail mobile fuelers that dispenses gasoline on a public street into a motor vehicle or equipment that was responding to an emergency or maintaining public infrastructure electronically submit the information maintained pursuant to paragraph (k)(9) no later than 48 hours after the conclusion of the dispensing.

Subdivision (m)(3) is incorporated from existing requirements in Rule 461 and requires the owner or operator of a retail or non-retail mobile fueler to provide the monthly gasoline dispensing records required by paragraph (k)(6) through (k)(8) for the previous calendar year to the Executive Officer in an approved format on or before March 1.

Subdivision (m)(4) is incorporated from existing requirements in Rule 461 and requires a person who conducts performance or reverification tests to submit a copy of the PASS/FAIL test results, showing a summary of the overall results of each test, within 72 hours after each test is conducted to the Executive Officer in a South Coast AQMD approved electronic format.

Subdivision (m)(5) is incorporated from existing requirements in Rule 461 and requires a person who conducts performance or reverification tests to submit the final test report demonstrating compliance within 14 calendar days of the date when all tests were passed. These records would include all the required records of all tests performed, test data, current South Coast AQMD facility ID number of the Mobile Fueler being tested, the equipment permit to operate or application number, the South Coast AQMD ID number of the company performing the tests, a statement whether the system or component tested meets the required standards, and the name, South Coast AQMD tester ID number and signature of the person responsible for conducting the tests.

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.

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.

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 off 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 December 2021 was NVR-1-F[17]).

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.

[17] 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 RULE 219

OVERVIEW OF PROPOSED AMENDED RULES 219

PROPOSED AMENDED RULE 219

OVERVIEW OF PROPOSED AMENDED RULE 219

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. PAR 219 will modify and include exemptions in Storage and Transfer Equipment in subdivision (m).

Need for Proposed Amended Rule 219

Amendments to Rule 219 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.

PROPOSED AMENDED RULE 219

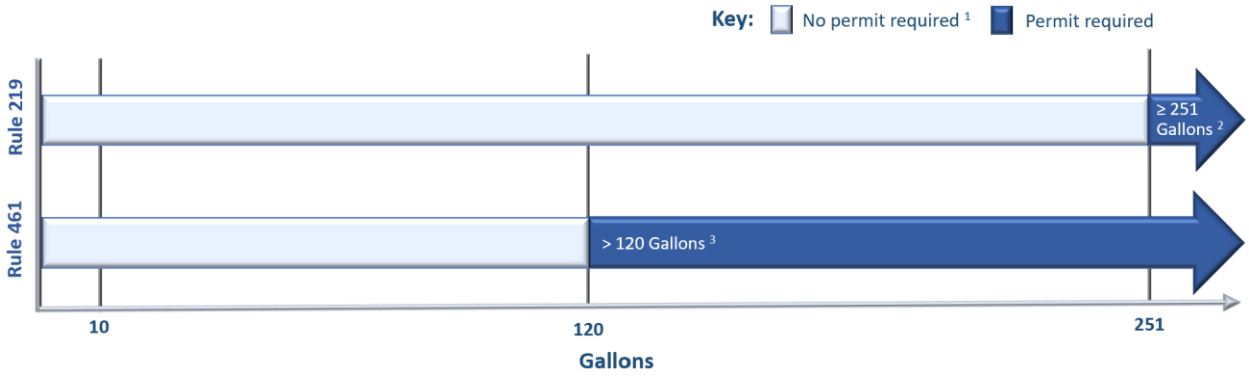
Storage and Transfer Equipment – Subdivision (m)

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)(12) temporarily exempts mobile fuelers previously exempt so operators have time to apply and obtain a permit to operate.

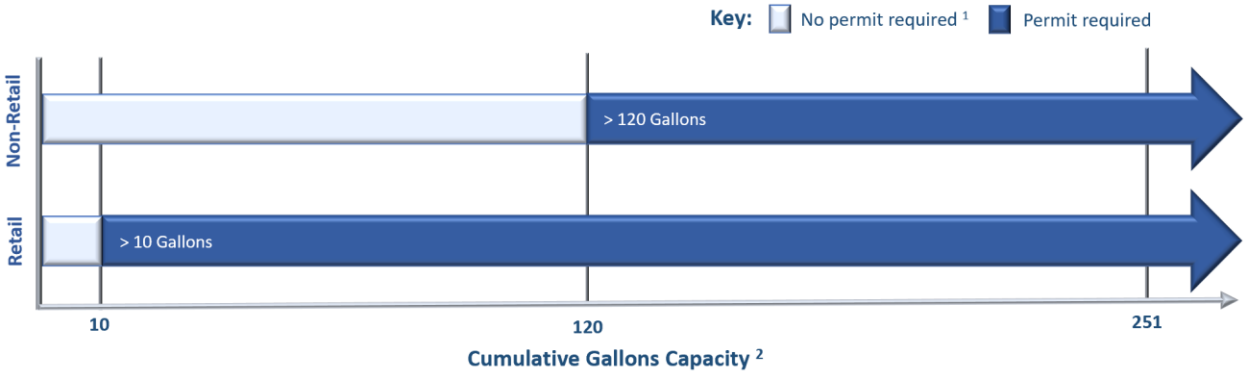
Figure 4-1 is a graphic representation of the current permitting requirements for mobile fuelers that fuel into motor vehicles. A permit to operate would be required for mobile fuelers with a tank capacity greater than 120 gallons as it would be required to be equipped with vapor recovery pursuant to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

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. 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 traditionally 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 expected to be impacted by PAR 219. 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

Based on internet searches, stakeholder information, and compliance activities, staff suspects at least three mobile fueling companies have operated Model 3 mobile fuelers in the South Coast Air Basin. This includes one mobile fueling company that operated five mobile fuelers that were included in the count of mobile fuelers. As discussed in Chapter 1, Model 3 mobile fuelers lack emission controls and are unregulated. This regulatory gap means Model 3 mobile fuelers could operate near sensitive receptors and dispense gasoline in quantities that are comparable to a stationary gasoline dispensing facility.

The survey responses are not reflective of staff's research. 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 geographic scope and limited use of one certified mobile fueler, and the discontinued manufacturing of a part necessary for proper operation of the only other 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. Accordingly, 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 Phase II non-vapor recovery components until two CARB certified mobile fuelers with Phase II vapor recovery

systems are available plus 60 months following notification by the Executive Officer. 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 the 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 and CEQA Guidelines Section 15251(l); codified in South Coast AQMD Rule 110) and CEQA Guidelines Section 15070, the South Coast AQMD as lead agency, has prepared an Environmental Assessment (EA) with less than significant impacts for the proposed project. The EA is a substitute CEQA document prepared in lieu of a Negative Declaration. A Draft EA has been released for a 30-day public comment and review period from November 24, 2021 to December 24, 2021. If written comments are received, the comments and responses will be incorporated into the Final EA.

SOCIOECONOMIC IMPACT ASSESSMENT

California Health & Safety Code §40440.8 requires a socioeconomic impact assessment for proposed and amended rules resulting in significant impacts to air quality or emission limitations. Staff has determined adoption of this rule would not result in significant impacts to air quality or emission limitations. Nevertheless, staff has provided the following impact analysis of the proposed rule.

Proposed Rule 461.1 – Gasoline Transfer and Dispensing for Mobile Fueling Operations (PR 461.1) expands the control of VOC emissions from mobile fuelers with an individual tank capacity greater 120 gallons (currently subject to Rule 461) to retail mobile fuelers with a cumulative capacity greater than 10 gallons and non-retail mobile fuelers with a cumulative capacity greater than 120 gallons (subject to PR 461.1). PR 461.1 would establish requirements based on Rule 461 to ensure VOC and toxic emissions are controlled.

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, or PAR 219.

Rule 461 and PR 461.1 affect the Petroleum and Petroleum Products Merchant Wholesalers (except Bulk Stations and Terminals) industry (North American Industry Classification System [NAICS] 424720). Economic Models, Inc. (EMSI) regional industry profile for NAICS 424720 indicates just over 2,000 jobs in the 4-county region, and stable supply in the region (minimal growth or contraction).[18]

COMPLIANCE COSTS

PR 461.1 addresses the regulatory gap by implementing requirements for previously unregulated mobile fuelers that align with Rule 461. PR 461.1 also establishes interim operating requirements to temporarily allow CARB certified mobile fuelers without Phase II systems to operate until CARB has certified at least two mobile fuelers equipped with Phase I and Phase II vapor recovery

[18] Economic Models, Inc. (EMSI), economicmodeling.com industry profile for NAICS 424720, accessed 11/24/2021.

systems plus 60 months has elapsed following notification from the Executive Officer. As discussed in Chapter 1, CARB certified mobile fuelers equipped with Phase I and Phase II vapor recovery systems are not available for purchase, even though there are mobile fuelers permitted to operate in the South Coast AQMD that meet the requirements to operate with a Phase II vapor recovery system.

While an owner or operator would be required to cease operating a mobile fueler that is not equipped with Phase II, this is not a new requirement. Rule 461 prohibits retail operation for a CARB certified mobile fueler equipped with a Phase I vapor recovery system and non-vapor recovery components from dispensing into motor vehicles. PR 461.1 is temporarily allowing the use of such mobile fuelers as CARB certified mobile fueler equipped with Phase I and Phase II vapor recovery system is unavailable for purchase. As such, the future costs to either retrofit or acquire a CARB certified mobile fueler equipped with a Phase II vapor recovery system are not directly attributable to PR 461.1 since this was pre-existing requirement.

Existing facilities complying with Rule 461 are currently meeting the requirements for a CARB certified Phase I & Phase II vapor recovery system and as such are not expected to purchase any additional equipment or incur any additional costs. Staff recognizes Model 3 mobile fuelers would require costs to convert to a compliant model, but is unable to verify any Model 3 mobile fuelers are currently operating within South Coast AQMD's jurisdiction.

PR 461.1 monitoring, recordkeeping, and reporting requirements overlap with the existing Rule 461 requirements, and do not pose a significant increase in labor costs to mobile fueling operators. The regional economic impacts of the proposed rule are expected to be minimal.

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, and PAR 219 are needed to regulate the emerging industry of retail mobile fuelers. PR 461.1 will address the regulatory gap for mobile fuelers with cumulative capacities of 10 to 251 gallons of gasoline and will require mobile fuelers to meet existing performance standards using equipment certified by CARB. PAR 461 and PAR 219 are needed for alignment with PR 461.1 and to eliminate conflicts with permitting thresholds and requirements for retail mobile fueling.

Authority

The South Coast AQMD Governing Board has authority to adopt PR 461.1, PAR 461, and PAR, 219 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, and PAR 219 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, and PAR 219 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, and PAR 219 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, and PAR 219, 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 proposed requirements in PR 461.1 also affect mobile fuelers subject to Rule 461, as the rule applies to both stationary and mobile gasoline transfer and dispensing. As discussed in Chapter 1 and Chapter 3, existing requirements for mobile fuelers would be removed in PAR 461. Since the requirements of PR 461.1 build upon the requirements from Rule 461, the comparative analysis focuses on requirements for mobile fueling operations.

Rule Element	PR 461.1	PAR 461	Rule 461
Applicability	• Mobile fueler that conducts retail or non-retail operations • Persons that conduct testing, installation or repairs • Manufacturers and suppliers	Mobile fueler applicability removed	• Facilities that transfers gasoline from any tank truck, trailer, or railroad tank car into a stationary storage tank or mobile fueler and from stationary storage tank or mobile fueler into a motor vehicle fuel tank • Persons that conducts testing, installations or repairs • Manufacturers and suppliers
Mobile Fueler Vapor Recovery Requirements Phase I	• Equip mobile fueler cargo tank with vapor recovery system certified pursuant to CP-204	Mobile fueler requirements removed	• Equip mobile fueler tank with a “CARB certified” vapor recovery having a volumetric efficiency of 95%
Mobile Fueler Vapor Recovery Requirements Phase II	• Equip mobile fueler cargo tank dispensing into motor vehicles with a vapor recovery system certified pursuant to CP-205 • CARB issued an Executive Order for the mobile fueler • Phase II components vapor and liquid tight while dispensing • Nozzles equipped with CARB certified insertion interlock mechanism and vapor check valve • Nozzles equipped with coaxial hose per Executive Order	Mobile fueler requirements removed	• Equip mobile fueler with a "CARB certified" vapor recovery system as capable of recovering or processing displaced gasoline vapors by at least 95% or having an emission factor not exceeding 0.38 pounds per 1,000 gallons

Mobile Fueler Non-vapor Recovery Requirements Phase II	• Mobile fuelers equipped with CARB certified non-vapor recovery components shall
	  ○ Not dispense into anything other than a motor vehicle equipped with ORVR
	  ○ CARB issued an Executive Order for the mobile fueler
	  ○ Record motor vehicle information
	  ○ Submit monthly motor vehicle records report
	• No later than 60 months after the Executive Officer issues a notification that CARB has certified at least two mobile fuelers equipped with a Phase II vapor recovery system, owner or operator shall
	  ○ Operate a CARB certified mobile fueler equipped with Phase II vapor recovery system
	  ○ Cease operating the mobile fueler equipped with a CARB certified non-vapor recovery component
		• Non-retail gasoline dispensing facilities issued a permit prior to [Date of Adoption] shall
		  ○ Use hoses, breakaways, and nozzles that are part of a "CARB certified" vapor recovery system, except that the vapor return line is sealed off
		  ○ Use CARB certified non-vapor recovery component identified in the most recent revision of CARB Executive Order NVR-1
		• If the non-retail gasoline dispensing was issued a permit or modified after [Date of Adoption] shall
		  ○ Use CARB certified non-vapor recovery component identified in the most recent revision of CARB Executive Order NVR-1
			• Non-retail gasoline dispensing facilities shall
			  ○ Use hoses, breakaways, and nozzles that are part of a "CARB certified" vapor recovery system, except that the vapor return line shall be sealed off
			  ○ Dispense only into vehicles owner or direct control of the operator (except vehicles responding to an emergency
			  ○ Dispense only into vehicles equipped with an ORVR system (except vehicles responding to an emergency)
			  ○ Maintain records

Rule Element	PR 461.1	PAR 461	Rule 461
Cargo Tank Requirements	• Mobile fueler capacity shall not be greater than 5,000 gallons • Equip the mobile fueler with a non-resettable totalizer • Not have on-board more than one portable fuel container	Mobile fueler requirements removed	• Mobile fueler capacity shall not be greater than 5,000 gallons
Operational Requirements: Spillage	• Store and handle gasoline in a manner that avoid spills	Mobile fueler requirements removed	• Store and handle gasoline in a manner that avoid spills
Operational Requirements: Dispensing Restrictions	• Dispensing hose length shall not exceed 75 feet • Dispensing of gasoline only by owner or operator of mobile fueler	None specified None specified	None specified None specified
Operational Requirements: Equipment tagged Out of Order	• Equipment "Out of Order" o Repaired, replaced, or adjusted o Notify Executive Officer o Reinspected by Executive Officer, if required	Mobile fueler requirements removed	• Equipment "Out of Order" o Repaired, replaced, or adjusted o Notify Executive Officer o Reinspected by Executive Officer, if required

Rule Element	PR 461.1	PAR 461	Rule 461

Operational Requirements: CARB Certified Equipment	• Operate per:
	  ○ Manufacturer specifications
	  ○ Executive Order
	• Maintain Phase I and Phase II equipment so they are liquid and vapor tight, when applicable
	• Maintain spill box free of debris
	• Equip with overfill protection
	• Only bottom load gasoline into cargo tank from facility with Phase I vapor recovery system
	• Not top load of gasoline into cargo tank
	• Equip fill tubes and dry breaks with vapor tight caps and seals
	• Maintain each vapor tight cap in closed position unless it is active use
	• Equip each cargo tank or compartment with an overfill protection device
	• If equipped with a spill box, maintain it free of debris and other foreign matter
	• Keep cargo tank dome hatch closed
		Mobile fueler requirements removed	• Operate per:
			  ○ Manufacturer specifications
			  ○ Executive Order
			• Maintain Phase I and Phase II equipment so they are liquid and vapor tight, when applicable
			• Maintain spill box
			• Breakaway couplings with poppet valves, liquid and vapor tight
			• Overfill protection
			• Bottom load gasoline
			• Not specified

Rule Element	PR 461.1	PAR 461	Rule 461
Mobile Fueling Location Requirements	• Retail mobile fueler shall not operate unless a record for the dispensing location was submitted that identified the mobile fueler	Not specified	• Not specified
	• Only one retail mobile company can operate per calendar month	• Not specified	• Not specified
	• Prohibited from operating 7:30 a.m. to 4:30 p.m. on days when school in session, if within 1,000 feet of school	• Not specified	• Not specified
	• Not operate without letter from the fire authority	• Not specified	• Not specified
	• May not dispense on public street, unless the non-retail mobile fueler is responding to an emergency or maintaining public infrastructure	• Not specified	• Not specified
	• Retail mobile fueler must dispense into equipment located at same dispensing location	• Not specified	•
Mobile Fueling Labeling Requirements	• Owner shall post South Coast AQMD Complaint Line signage on mobile fueler	Mobile fueler requirements removed	• Owner shall post SCAQMD Complaint Line signage and toxic warning signs on mobile fueler

Rule Element	PR 461.1	PAR 461	Rule 461

Installation, Maintenance, and Repair Requirements	• Maintain CARB certified equipment per:
	  ○ Manufacturer specifications
	  ○ Executive Order
	• Minor defect repair within 7 days
	• Replace CARB certified component with CARB certified component
	• Maintain CARB components as supplied by manufacturer except after repair or maintenance to restore function or performance
	• Only CARB authorized person may rebuild CARB certified components
	• Repair performed only by certified trained person using new or CARB certified remanufactured components listed on most recent CARB Executive Order
	• Non-manufacturer installer or contractor shall not install, alter, repair, or replace CARB certified systems unless obtaining any applicable manufacturer's certification
	• Installer or contractor shall not install, alter, repair, or replace CARB certified systems unless successfully completing applicable state certification
		Mobile fueler requirements removed	• Maintain CARB certified equipment per:
			  ○ Manufacturer specifications
			  ○ Executive Order
			• Minor defect repair within 7 days
			• Replace CARB certified component with CARB certified component
			• Maintain CARB components as supplied by manufacturer except after repair or maintenance to restore function or performance
			• Only CARB authorized person may rebuild CARB certified components
			• Repair performed only by certified trained person using new or CARB certified remanufactured components listed on most recent CARB Executive Order
			• Non-manufacturer installer or contractor shall not install, alter, repair, or replace CARB certified systems unless obtaining any applicable manufacturer's certification
			• Installer or contractor shall not install, alter, repair, or replace CARB certified systems unless successfully completing

Rule Element	PR 461.1	PAR 461	Rule 461

	program required for the installation and alteration of a vapor recovery system
	• A person shall not supply, offer for sale, sell, install or allow the installation of control equipment unless
	  ○ Control equipment is CARB certified
	  ○ Control equipment components have enduring stamped information identifying the component in the CARB Executive Order
	• Qualified manufacturer shall attach or stamp onto a rebuilt component required information using methods or materials that would endure long term
	• In the event of a separation due to a drive-off, the owner shall conduct a visual inspection and either:
	  ○ Repair the equipment and successfully pass required testing from CARB Executive Order; or
	  ○ Replace the affected equipment using new or certified rebuilt components that are CARB certified
			applicable state certification program required for the installation and alteration of a vapor recovery system
			• A person shall not supply, offer for sale, sell, install or allow the installation of control equipment unless
			  ○ Control equipment is CARB certified
			  ○ Control equipment components have enduring stamped information identifying the component in the CARB Executive Order
			• Qualified manufacturer shall attach or stamp onto a rebuilt component required information using methods or materials that would endure long term
			• In the event of a separation due to a drive-off, the owner shall conduct a visual inspection and either:
			  ○ Repair the equipment and successfully pass required testing from CARB Executive Order; or
			  ○ Replace the affected equipment using new or

Rule Element	PR 461.1	PAR 461	Rule 461
	• Unless authorized by CARB, any person shall not conduct repair or maintenance that changes the size, shape or construction of any gasoline vapor passage that would reduce the recovery of gasoline vapors		certified rebuilt components that are CARB certified • Unless authorized by CARB, any person shall not conduct repair or maintenance that changes the size, shape or construction of any gasoline vapor passage that would reduce the recovery of gasoline vapors
Self-Compliance Requirements	Owner or operator of a retail mobile fueler or a non-retail mobile fueler shall: • Conduct o Daily maintenance inspections o Periodic compliance inspections o Periodic maintenance specified by manufacturer of the control equipment • Develop and implement: o Procedures to determine and record next required test date o Employee training program • Upon identification of a major defects in vapor recovery systems, remove the equipment from service and repair equipment before returning it to service	Mobile fueler requirements removed	Owner or operator of a retail dispensing shall implement: • Self compliance program that includes: o Daily maintenance inspections o Periodic compliance inspections o Maintenance inspection with the applicable Phase I and Phase II vapor recovery systems and components o Procedure to determine and record the next required test date o Employee training program • Remove, repair, brought into compliance, and duly entered into the repair log any equipment with a major defect that was identified during inspections

Rule Element	PR 461.1	PAR 461	Rule 461
			• Defects discovered self-inspection and repaired shall not constitute a violation of Rule 461 • Complete District-approved training program prior to conduct daily or periodic inspections
Recordkeeping	• Owner or operator of a mobile fueler shall implement a maintenance program and document program in an Operation and Maintenance (O&M) Manual for CARB certified control equipment • Owner or operator of a retail or non-retail mobile fueler shall maintain: o Records of all components installed, defective components identified or repaired during self-compliance inspections o Repair logs o Records of tests o Daily and periodic compliance inspection records o Records to prove that installer/contractor has successfully completed any applicable manufacturer or state certification program	Mobile fueler requirements removed	• Owner or operator shall implement a maintenance program and document program in an O&M Manual for vapor recovery system • Owner or operator shall maintain the following: o Records of all components installed, defective components identified or repaired during self-compliance inspections o Repair logs o Records of tests o Daily and periodic compliance inspection records o Records to prove that installer/contractor has successfully completed a manufacturer

Rule Element	PR 461.1	PAR 461	Rule 461
	• Owner or operator of a retail mobile fueler shall maintain a record for each dispensing location, totalizer records, and any reconciliation • Owner or operator of a retail or non-retail mobile fueler with a throughput limit per location shall maintain daily dispensing record and create a monthly dispensing record for the prior month on or before the 20th of each calendar month • Owner or operator shall maintain information when dispensing on a public street • Owner or operator of a retail or non-retail mobile shall maintain daily transfer record • Owner or operator of a retail or non-retail mobile fueler without a throughput limit shall create a monthly dispensing record for the previous calendar month • A person who installs, inspects, or tests shall provide the owner or operator of a mobile fueler all records by the end of the day when the service is provided • Owner or operator of a retail or non-retail mobile fueler shall		• Not specified • Owner or operator of a gasoline transfer and dispensing facility shall maintain monthly gasoline throughput records • A person who installs, inspects, or tests shall provide the owner or operator of a mobile fueler all records by the end of the day when the service is provided • Owner or operator of a gasoline transfer and dispensing facility shall provide all records for at least two years or five years at a Title V facility

Rule Element	PR 461.1	PAR 461	Rule 461
	maintain all records for at least two years or five years at a Title V facility • Owner or operator of a retail or non-retail mobile fueler shall provide all records upon request to the Executive Officer		• Owner or operator of a gasoline transfer and dispensing facility shall provide all records upon request to the Executive Officer
Testing Requirements for owner or operator	• Mobile fueler equipped with a Phase I or Phase II vapor recovery system shall: o Conduct all required tests in accordance with approved test methods o Conduct and pass performance tests within 10 calendar days after initially dispensing gasoline from a new mobile fueler or a mobile fueler that has undergone modification • Retail mobile fueler equipped with a Phase I or Phase II vapor recovery system shall conduct reverification tests annually or semi-annually depending on throughput • Non-retail mobile fueler equipped with a Phase I or Phase II vapor recovery system shall conduct reverification annually		• New or altered gasoline and transfer dispensing facility shall: o Conduct all required tests in accordance with approved test methods o Conduct and pass performance tests within 10 calendar days after initially dispensing gasoline • Retail gasoline transfer and dispensing facility shall conduct reverification tests annually or semi-annually depending on throughput • Non-retail gasoline transfer and dispensing facility shall conduct reverification annually

Rule Element	PR 461.1	PAR 461	Rule 461

	• Mobile fueler equipped with a Phase I or Phase II vapor recovery system shall conduct subsequent reverification test during the same calendar month or based on the new reverification testing month
	• Not operate mobile fueler unless either:
	  o Applicable performance and reverification tests are passed
	  o Test failure is due to dispensing equipment and the equipment can be isolated
			• Gasoline transfer and dispensing facility shall conduct subsequent reverification test during the same calendar month or based on the new reverification testing month
			• Not operate gasoline transfer and dispensing facility unless either:
			  o Applicable performance and reverification tests are passed
			  o Test failure is due to dispensing equipment and the equipment can be isolated

Testing Change in Operator or Owner	• New owner or operator of mobile fueler shall either:
	  o Conduct the next reverification test within the same testing month
	  o Complete all the applicable reverification testing within 30 days of the change of the owner or operator if no prior reverification test records are available
		No amendment proposed	• New owner or operator of a gasoline transfer and dispensing shall either:
			  o Conduct the next reverification test within the same testing month
			  o Complete all the applicable reverification testing within 30 days of the change of the owner or operator if no prior reverification test records are available

Rule Element	PR 461.1	PAR 461	Rule 461
Testing Requirements for person who conduct performance or reverification tests	• Conduct tests in accordance with applicable test methods • Use calibrated equipment • Notify South Coast AQMD at least three days prior to testing • Conduct testing between 7:00 a.m. and 8:00 pm. Monday through Friday • Successfully completed the South Coast AQMD's Tester Orientation class prior to testing • Successfully completed the ICC tester certification • Cease conducting tests after being cited within any six-month period for at least two violations that affected the accuracy of the test until after successfully re-completing the South Coast AQMD's Tester Orientation class • Cease conducting tests after being cited within any 12-month period for at least three violations that could have affected the accuracy of the test	No amendment proposed	• Conduct tests in accordance with applicable test methods • Use calibrated equipment • Notify South Coast AQMD at least three days prior to testing • Conduct testing between 7:00 a.m. and 8:00 pm. Monday through Friday • Successfully completed the South Coast AQMD's Tester Orientation class prior to testing • Successfully completed the ICC tester certification • Cease conducting tests after being cited within any six-month period for at least two violations that affected the accuracy of the test until after successfully re-completing the South Coast AQMD's Tester Orientation class • Cease conducting tests after being cited within any 12-month period for at least three violations that could have affected the accuracy of the test

Rule Element	PR 461.1	PAR 461	Rule 461
Testing Requirements for person who conduct performance or reverification tests **(continued)**	• May retest prior to resuming operation of the mobile fueler provided: o South Coast AQMD was notified and confirmation was received at least 12 hours prior to retesting o Retest the same day without notification if necessary, repairs were performed and documented during the same day of any of the applicable reverification test	No amendment proposed	• May retest prior to resuming operation of the mobile fueler provided: o South Coast AQMD was notified and confirmation was received at least 12 hours prior to retesting o Retest the same day without notification if necessary, repairs were performed and documented during the same day of any of the applicable reverification test
Reporting	• Owner or operator of a retail mobile fueler shall submit dispensing location records: o No less than 48 hours prior to dispensing at a dispensing location without a record o No less than 48 hours priors to dispensing at a location that was served by a different mobile fueling company during a prior calendar month • Owner or operator of a retail or non-retail mobile fueler shall submit information after responding to an emergency or maintenance of public	Mobile fueler requirements removed	• Not specified • Not specified

Rule Element	PR 461.1	PAR 461	Rule 461
	infrastructure no later than 48 hours after dispensing on a public street • Owner or operator of a retail mobile fueler shall submit monthly dispensing records for the previous year on or before March 1 • A person who conducts tests shall submit a summary of the results to the Executive Officer within 72 hours after each test is conducted • A person who conducts tests shall submit the final test report within 14 calendar days the date when all dates were passed		• Owner or operator of a gasoline transfer and dispensing facility shall submit monthly gasoline throughput data for the previous calendar year on or before March 1 • A person who conducts tests shall submit a summary of the results to the Executive Officer within 72 hours after each test is conducted • A person who conducts tests shall submit the final test report within 14 calendar days the date when all dates were passed
Exemptions	• Transfer of gasoline into testing equipment is exempt from the rule • Phase II vapor recovery requirements shall not to the fueling of Tournament of Roses parade floats • Until July 1, 2022, Phase I Vapor Recovery requirements shall not apply to: o Retail mobile fueler with a cumulative capacity greater than 10 gallons and less than 251 gallons	No additional amendment proposed	• Transfer of gasoline into testing equipment is exempt from the rule • Phase II vapor recovery requirements shall not to the fueling of Tournament of Roses parade floats • Any requirement for equipment or component(s) to be CARB certified where an applicable valid Executive Order has not been issued by CARB shall not apply until applicable Executive Order becomes effective

Rule Element	PR 461.1	PAR 461	Rule 461
	○ Non-retail mobile fueler with a cumulative capacity greater than 120 gallons and less than 251 gallons ○ Non-retail or retail mobile fueler that does not dispense into a motor vehicle • Until July 1, 2022, Phase II Vapor Recovery requirements shall not apply to: ○ Retail mobile fueler with a cumulative capacity greater than 10 gallons and less than 251 gallons ○ Non-retail mobile fueler with a cumulative capacity greater than 120 gallons and less than 251 gallons • Until July 1, 2022, subdivision (g) shall not apply to a retail or non-retail mobile fueler		

APPENDIX A: RESPONSE TO COMMENTS

TABLE OF CONTENTS

Britney Gallivan

From: Frazer, Ronald M [US] (SP) <Ron.Frazer@ngc.com>
Sent: Tuesday, October 26, 2021 4:56 PM
To: Britney Gallivan
Subject: PRO 219

I've reviewed the language in PRO 219 and the corresponding Staff Report.
It appears that the only changes to R219 are those related to fueling operations, and I assume that no other proposed changes not associated with fueling would be considered.

There are a number of inconsistencies in R219 that should be addressed such as the emission control system for some exempt sources are also exempt, but for other exempt sources the associated control system is not exempt.

Electroplating precious metal is exempt, but Electroless plating of the same metals, which has significantly less emissions, is not exempt.

(5) Equipment used exclusively for the plating, stripping, or anodizing of metals as described in subparagraphs (p)(5)(A) through (p)(5)(G). This exemption does not include any tank that contains chromium, or contains nickel, lead or cadmium and is rectified, sparged or heated.

(A) electrolytic plating of exclusively brass, bronze, copper, iron, tin, zinc, and precious metals;

(B) electroless nickel plating, provided that the process is not air-sparged and no electrolytic reverse plating occurs;

(C) the electrolytic stripping of brass, bronze, copper, iron, tin, zinc, and

Please contact me if you have any questions.

Ronald Frazer
Senior Air Quality Engineer
Environmental, Health, & Safety
Northrop Grumman Aerospace Systems

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310.812.3021 - office
310.429.2175 - cell
310.812.1059 - fax

Response to Northrop Grumman Aerospace Comment Letter (10/26/21), submitted 10/26/2021

The proposed amendments to Rule 219 are specific to the rule development of Proposed Rule 461.1 (PR 461.1) and address mobile fueling operations that were previously exempt. As staff has not evaluated Rule 219 for additional amendments nor solicited comments on other provisions of Rule 219, Rule 219 is only being amended to address mobile fueling operations. Separate rulemaking for Rule 219 will be initiated in the first quarter of 2022, to determine amendments that need to be made, and will be included in the Resolution in the board package.

Britney Gallivan

From: Bob Hill <bob@franzenhill.com>
Sent: Sunday, November 7, 2021 7:47 AM
To: Britney Gallivan
Subject: [EXTERNAL]Booster fuel letter

We went down this road at hearings at SCAQD hearings, and the two-System with Executive Orders issued were the SUMD System G-70-166 and the Hill-Vac Systems G-70-193 this was i believe in 1997 through 1999.
I am sorry I can't attend the meeting, I am having medical procedure @9:00 am.

Sent from my iPhone

Response to Bob Hill Comment Email, submitted 11/07/21

Staff appreciates the additional information regarding CARB Executive Order G-70-166 issued in 1995, as this system was not listed on the CARB website. G-70-166 was certified for the Sacramento Municipal Utility District. Staff confirmed with CARB that this Executive Order was indeed issued. Staff has corrected the staff report to indicate that there were two CARB certified mobile fuelers equipped with Phase II vapor recovery systems. However, as both systems are not available for purchase, staff is retaining the provision to temporarily allow CARB certified mobile fuelers equipped with a Phase I and a non-vapor recovery dispensing components to operate.

Britney Gallivan

From: Cheryl Atkinson <cheryl.atkinson.pfcma@gmail.com>
Sent: Sunday, November 7, 2021 8:19 AM
To: Britney Gallivan
Subject: [EXTERNAL]461, 219, 461.1

Hi Brittany
I represent the Consumer Portable Fuel Container Manufacturer's Association and have been following the progression of rule changes related to Mobile Fueling. I would like to comment positively on the various exemptions that have been introduced for portable fuel containers. However I would like to point out that consumer portable fuel containers are certified to the voluntary standard ASTM F852/F852M and at least 95% of the U.S. market for portable fuel containers comply with this standard.
I would therefore recommend that your various exemptions reflect the capacity range used in this standard. This is stated as:

4.3 *Capacity*—The PFC rated capacity shall be a maximum of 25 L [6.6 gal]

Please advise me if I should raise this matter more formally in order to ensure that it receives suitable consideration.
Thank you
Cheryl Atkinson
PFCMA Executive Director
902 635 2460

Responses to Cheryl Atkinson Comment Email, submitted 11/07/21

The exclusion of a single portable fuel container in the PR 461.1 definition of Cumulative Capacity was revised from 5 gallons to the following:

> *CUMULATIVE CAPACITY means the Mobile Fueler's combined 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 6.6 gallons.*

Britney Gallivan

From: Jose E. Rodriguez <jerodriguezsd@aol.com>
Sent: Tuesday, November 9, 2021 11:46 AM
To: Britney Gallivan
Subject: Re: **UPDATE - MEETING PRESENTATION** South Coast AQMD Proposed Amended Rules 461, 219, 222 and Proposed Rule 461.1 - Working Group Meeting #8

Hello Britney,

Thank you for the invitation great presentation today. With regards to mobile refueling and a CARB EVR approved phase II system; is there anyone currently seeking or undergoing certification with CARB at this time?

Also, can you provide Taylor Henderson, Boost Fueling contact information?

Thank you,

Jose E. Rodriguez
Director of Technical Services,
CARB Liaison & Western US Sales
EMCO Wheaton Retail Corp.
Cell: 619-846-846-9882

Responses to Jose E. Rodriguez Comment Email, submitted 11/09/21

Staff is only aware of Hill-Vac Vapor Recovery System for Cargo Tank Motor Vehicle Fueling Systems that is undergoing CARB recertification at this time.

Booster Fuels, Inc.
1840 Gateway Drive
Suite 200
San Mateo, CA 94404

VIA EMAIL

November 10, 2021

Ms. Susan Nakamura
Assistant Deputy Executive Officer
Planning, Rule Development
South Coast Air Quality Management District
21865 Copley Drive
Diamond Bar, CA 91765

RE: Proposed Rule 461.1 Rulemaking Comments

Dear Ms. Nakamura:

I want to thank you and the South Coast AQMD ("District") again for the time and effort collaborating with various governmental and industry stakeholders to further advance the proposed rulemaking for mobile fueling operations. We are grateful for the opportunity to work closely on this project and very much appreciate the steps taken by the District to address some of the key concerns that have been brought forth thus far. The District's recent decision to modify Proposed Rule 461.1 ("PR 461.1") to allow for the use of an alternative CARB certified method of complying with emission control requirements until at least two Phase II vapor recovery systems have been certified by CARB will not only help to alleviate market competition concerns, but provides added assurance that at least one CARB certified method of complying with a 95% emission control efficiency will be available should there be a lack of commercial availability for CARB certified Phase II systems.[1]

I write today on behalf of Booster Fuels, Inc. ("Booster") to provide further commentary on the primary inconsistencies we believe still remain between the proposed requirements applicable to "Retail" Mobile Fuelers compared to "Non-Retail" Mobile Fuelers. Our first concern is in regard to the duplicative permitting requirements that apply to both Retail Mobile Fueler and Owner or Operator of the dispensing location, and the second issue is in regard to various stakeholder concerns that arose during Working Group Meeting #8 on November 9, 2021 surrounding the potential lack of commercial availability of CARB certified Phase II vapor recovery systems (i.e. supply chain constraints, etc.) combined with the District's stated

[1] Modification made in response to Booster Comment Letter dated September 1, 2021 where the District concluded to allow CARB certified mobile dispensing systems that use CARB certified non-vapor recovery equipment for dispensing to only vehicles equipped with ORVR (such as the Booster Mobile Fueling On-Demand Tank Vehicle Gasoline Dispensing System for ORVR Vehicles per CARB Executive Order VR-601-A) until at least two Phase II vapor recovery systems have been certified by CARB.

preference for a Phase II vapor recovery system compared to other CARB certified methods capable of complying with a 95% emission control efficiency when the proposed rule will still require an emission control measure "capable of recovering or processing displaced Gasoline Vapors by at least 95%."

In terms of the duplicative permitting requirements, PR 461.1(g) not only requires the Retail Mobile Fueler obtain a permit to conduct fueling, which will be limited to specific consumer or fleet locations, but also requires the owner or operator of each dispensing location to obtain a separate registration or permit for that same fueling operation. We were particularly surprised to see that these requirements only apply to "Retail" Mobile Fueling, particularly in light of the extensive recordkeeping and monthly reporting requirements specific to "Retail" Mobile Fuelers that are already being proposed under PR 461.1(k)(2), (4) & (5):

PR 461.1(k)(2):

For each Dispensing Location, the owner or operator of a Retail Mobile Fueler shall maintain the following information:

- *A. South Coast AQMD facility ID for the Dispensing Location;*
- *B. South Coast AQMD registration or permit to operate number for the dispensing location;*
- *C. Name of the Dispensing Location;*
- *D. Address of the Dispensing Location;*
- *E. County of the Dispensing Location;*
- *F. Dispensing Location contact information for personnel that is authorized to grant South Coast AQMD staff access to the site to conduct inspections of the Mobile Fueler operations that includes the following:*
  - *i. Name of the contact;*
  - *ii. Title of the contact;*
  - *iii. Telephone number for the contact;*
  - *iv. Email for the contact; and*
- *G. Documentation by the responsible fire department or fire authority to the owner or operator for either:*
  - *i. The written approval to conduct transfer or dispensing gasoline from a retail mobile fueler at the specified dispensing location; or*
  - *ii. The written statement that approval that the transfer or dispensing of gasoline from a retail mobile fueler is not required at the specified dispensing location.*

PR 461.1(k)(4):

The owner or operator of a Retail Mobile Fueler or Non-Retail Mobile Fueler shall maintain records of the information specified in Table 2 – Transfer Information for each Transfer of Gasoline.

Comment 5-1

Table 2 – Transfer Information

	Requirements	Mobile Fueler Category	
		Retail	Non-Retail
2.1	Date of transfer	Yes	Yes
2.2	Start time of transfer	Yes	Yes
2.3	South Coast AQMD permit to operate or registration number for mobile fueler	Yes	Yes
2.4	Identification of cargo tank transferring the gasoline and cargo tank capacity in gallons	Yes	Yes
2.5	Identification of compartment transferring the gasoline and compartment capacity in gallons, if applicable	Yes	Yes
2.6	Name of the transfer location	Yes	Yes
2.7	Address of the transfer location	Yes	Yes
2.8	South Coast AQMD facility ID for the transfer location	Yes	Yes
2.9	Type of transfer (loading or unloading)	Yes	Yes
2.10	For each transfer, the type of gasoline, total gallons of gasoline transferred into or out of each cargo tank or cargo tank compartment	Yes	Yes

Comment 5-1 Cont.

PR 461.1(k)(5):

The owner or operator of a Retail Mobile Fueler shall maintain the following:

- *A. Totalizer records indicating the totalizing meter reading at the start and end of each day for each Cargo Tank and, if applicable, each Cargo Tank compartment; and*
- *B. Inventory reconciliation records indicating the following for each mobile fueler inventory reset:*
  - *i. Date of inventory reset;*
  - *ii. Time of inventory reset;*
  - *iii. Mobile fueler permit number; and*
  - *iv. Volume in gallons.*

As the requirements listed above demonstrate, there is already an extreme abundance of detailed recordkeeping requirements being proposed for Retail Mobile Fuelers on dispensing locations, totalizer meter readings, inventory reconciliations, dates, start time, compartment type, type of gasoline, and total gallons of gasoline transferred per each dispensing event at each location. It seems clear to us that this level of information would already provide the District with the information necessary to ensure health risk impacts are not being exceeded for any particular location. Our concern is that by requiring both Retail Mobile Fueler and Owner or

Operator of a dispensing location obtain a permit or registration, it will not only create a redundancy in permitting and cost but will be duplicative in that Retail Mobile Fuelers will already be subject to District health risk assessment and enforcement requirements when fueling at any particular site location.[2] We believe this could be avoided by requiring the owner or operator of a Retail Mobile Fueler to pre-register each site location where fueling operations are to be conducted, as we discussed during our recent telephone call.

Comment 5-1 Cont.

Secondly, PR 461.1(d)(2) & (3), as it's currently proposed, would require use of a CARB certified Phase II Vapor Recovery system regardless of commercial availability once two such systems are certified by CARB. As you know, Booster and at least one other industry stakeholder raised concerns about this issue during Working Group Meeting #8. Furthermore, not only has commercial availability of Phase II systems for mobile fuelers been a primary concern raised by various stakeholders throughout this proposed rulemaking, but it was the District's stance during Working Group Meeting #8 that use of an available CARB certified alternative, which the District has already concluded achieves a 95% emission control efficiency,[3] would not be allowed once two Phase II systems are certified. That said, PR 461.1(d)(2)(A) currently requires an emission control measure "capable of recovering or processing displaced Gasoline Vapors by at least 95%."

Comment 5-2

As noted in the Comment Letter submitted by Booster on September 1, 2021, Section 41954(g)(1) & (g)(3) of the California Health and Safety Code states:

> *(1) Except as authorized by other provisions of law and except as provided in this subdivision, no district may adopt, after July 1, 1995, stricter procedures or performance standards than those adopted by the state board pursuant to subdivision (a), and no district may enforce any of those stricter procedures or performance standards.*
> *(3) 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.*

By not allowing use of one CARB certified control measure capable of achieving a 95% control efficiency over another, it would seem as though the District is proposing to implement stricter performance standards than those which have been certified by CARB. The District even stated the following (in substance) during Working Group Meeting #8:

Comment 5-3

[2] Per Section 39620 of the California Health and Safety Code, "It is in the interest of the people of the state, particularly during times of economic difficulty, to enact laws which improve the processes by which businesses comply with environmental and air quality laws, without sacrificing the protection of public health and the environment . . . The purpose of this article is to require districts to review their permit programs and to institute new, efficient procedures which will assist businesses in complying with regional, state, and federal air quality laws in an expedited fashion, without reducing protection of public health and the environment."

[3] Per South Coast AQMD Draft Staff Report, Proposed Amended Rule 1401 – New Source Review of Toxic Air Contaminants, Appendix B – Comments and Responses: "As discussed at the Working Group meetings, based on the available test data from CARB and EPA, SCAQMD staff concluded that the Phase II vapor recovery system and ORVR systems **would each achieve a 95% control efficiency**." (August 2017).

- That there were discussions that SCAQMD had regarding the percentage reduction that would be applied for Phase II vapor recovery and a vehicle equipped with ORVR.
- That SCAQMD didn't believe there was a 95% reduction for Phase II on top of a 95% reduction for ORVR.
- That SCAQMD did believe that there was *"some benefit"* to using both systems together but SCAQMD was not clear on exactly what that benefit is.
- That SCAQMD had numerous discussions with CARB in which SCAQMD urged CARB to conduct additional testing.
- That since CARB has never done the retesting, SCAQMD has taken the "conservative approach" to only recognize one 95% control efficiency.

Comment 5-3 Cont.

Again, the primary concern here surrounds market competition and a potential lack of commercial availability for CARB certified Phase II systems.

We want to thank you and your team for the time and effort that you are putting into this process. We are happy to be a resource as you go through this rulemaking, and we would be glad to meet with you to discuss this or any other issues relating to the rulemaking process.

Thank you for your attention to this matter.

Best regards,

Joseph Okpaku
Chief Policy Officer
Booster Fuels, Inc.

Responses to Booster Fuels, Inc. Comment Letter, submitted 11/10/21

5-1 Response: Staff has revised PR 461.1 to remove the registration and permitting requirements for dispensing location owners and operators. Paragraph (g)(1) was revised to require a report for the dispensing location instead of the dispensing location being registered or permitted.

> *The owner or operator of a Retail Mobile Fueler shall not Transfer or Dispense Gasoline at a Dispensing Location unless a record for the Dispensing Location was submitted pursuant to paragraph (m)(1) that identified the Retail Mobile Fueler.*

The record in paragraph (m)(1) would include the information specified paragraph (k)(2) and would be submitted to the Executive Officer at least 48 hours before initial dispensing at a dispensing location and when a different mobile fueling operator was operating at the dispensing location during a prior calendar month. Additionally, as dispensing locations are not required to be registered, PAR 222 would not be amended.

5-2 Response: Throughout the rule development process, staff has revised PR 461.1 to temporarily allow a CARB certified mobile fueler equipped with Phase I vapor recovery system and non-vapor recovery components for dispensing. Staff met with the commenter and explained the challenge of making the requirements to cease operating a CARB certified mobile fueler equipped with Phase I vapor recovery system and non-vapor recovery components for dispensing dependent on "commercial availability". Staff believes that the term "commercial availability" is ambiguous and provides uncertainty to both South Coast AQMD and the regulated community.

Staff has modified the requirement to be a defined period, allowing mobile fuelers equipped with CARB certified non-vapor recovery components for dispensing to operate up to 60 months after the South Coast AQMD has given notice that CARB has certified at least two Mobile Fuelers equipped with Phase II Vapor Recovery Systems. This time period allows the procurement of the mobile fueler and permit with South Coast AQMD. Alternatively, if the owner or operator of the mobile fueler is not satisfied with the certified mobile fuelers, they can develop their own mobile fueler and work with CARB to certify the mobile fueler.

5-3 Response: Staff disagrees that PR 461.1 is requiring mobile fuelers to meet a stricter standard as a Phase II vapor recovery system was required in 1995 by Rule 461 (Also see South Coast AQMD response letter dated October 19, 2021 in response to Booster letter dated September 1, 2021). As discussed in Chapter 1, CARB has previously certified two mobile fuelers equipped with

Phase II vapor system. However, as both mobile fuelers are not available for purchase, staff has revised PR 461.1 to temporarily allow the operation of CARB certified mobile fueler equipped with Phase I vapor recovery system and non-vapor recovery components for dispensing. Additionally, when CARB certifies at least two mobile fuelers equipped with a Phase II vapor recovery system, PR 461.1 allows up to 60 months for owners and operator to purchase or certify CARB certified mobile fuelers equipped with Phase I and Phase II vapor recovery systems.

Britney Gallivan

From: Cheryl Atkinson <cheryl.atkinson.pfcma@gmail.com>
Sent: Wednesday, November 10, 2021 10:05 AM
To: Britney Gallivan
Subject: [EXTERNAL]Portable Fuel Container capacity
Attachments: F0852-19.pdf

Hi Brittany
I did finally find the CARB rulemaking for PFCs and it does go up to 10 gallons. I have attached for your information ASTM F852 which is a CARB reference (in the certification procedure CP 501). The capacity limit of a PFC is specified in section 4.3

Thank you
Cheryl

§ 2467.2. Certification Procedure for Portable Fuel Container Systems.
(a) Except as provided in section 2467.3, every portable fuel container system or its components produced on or after July 1, 2007, that are manufactured for sale, advertised for sale, sold, or offered for sale in California or that are introduced, delivered, or imported into California for introduction into commerce and that are subject to any of the standards prescribed in this article and documents incorporated by reference therein, must be certified for use and sale by the manufacturer through the Air Resources Board and covered by an Executive Order issued pursuant to section 2467.2(b) or (c).

Responses to Cheryl Atkinson Email, submitted 11/10/21

See Response 3.

November 11, 2021

Ms. Susan Nakamura
Assistant Deputy Executive Officer – Planning, Rule Development & Area Sources
South Coast Air Quality Management District

Mr. Neil Fujiwara
Program Supervisor
South Coast Air Quality Management District

Britney Gallivan
AQ Specialist
South Coast Air Quality Management District

Via email: snakamura@aqmd.gov, bgallivan@aqmd.gov, nfujiwara@aqmd.gov

SUBJECT: Transfer Flow Inc.'s Public Comments regarding SCAQMD's Proposed Amended Rule 461, Proposed Rule 461.1, Proposed Amended Rule 219, and Proposed Amended Rule 222

Transfer Flow Inc. is pleased to offer our comments to the South Coast Air Quality Management District regarding SCAQMD's proposed amended rule 461, proposed rule 461.1, proposed amended rule 219, and proposed amended rule 222.

Transfer Flow has been in business since 1983 and is a manufacturer of California legal aftermarket fuel tanks. Transfer Flow holds over 280 California Air Resource Board (CARB) Executive Orders (E.O.s) as well as a Department of Transportation (DOT) permit. Transfer Flow has undergone great lengths to ensure our aftermarket fuel tanks and fuel system products are both legal and safe. As the industry's leading California legal aftermarket fuel tank manufacturer, Transfer Flow is a knowledgeable and proficient voice within the industry. Transfer Flow has and will continue to participate in the rulemaking process.

Our comments are as follows:

I. REQUEST FOR AN EXTENSION OF THE COMMENT PERIOD

Transfer Flow respectfully requests that the South Coast Air Quality Management District consider granting an extension for submitting comments. The proposed rule language was made available to the public on October 22nd, 2021. The public comment period was not announced until October 27th, 2021 and ends November 10th, 2021. This only provides fifteen days to review three proposed amended rules, one proposed rule, and the staff report

Comment 7-1

1444 Fortress Street, Chico, CA 95973 | (530) 893-5209 | (800) 442-0056 | fax (530) 893-0204 | www.TransferFlow.com

as well as to prepare a response. Given the complexity of the proposed rule and amended rules, a two-week time-period for comments is not sufficient time to develop substantive comments regarding the proposed rule and amended rules.

Comment 7-1 Cont.

II. SCAQMD'S RULEMAKING ACTIVITY IS OVERREACHING

Between 2008 to 2012, the California Air Resources Board (CARB) performed a battery of tests regarding metal gasoline transfer tanks including multiple 7-day diurnal SHED (sealed housing evaporative determination) tests, thermal cycling tests, and a 140-day preconditioning test and it was determined by CARB's Air Quality Planning and Science Division that Transfer Flow's metal transfer tanks do not create enough emissions for CARB to regulate metal transfer tanks. This is consistent with the Code of Federal Regulations (CFR) Title 40 Protection of the Environment §1060.103(f) and §1060.240(d)(2) in that metal fuel tanks do not permeate and are therefore exempt from needing to submit applications for certification.

Comment 7-2

III. SCAQMD CANNOT REQUIRE CP-204 CERTIFICATION FOR METAL TRANSFER TANKS UNDER 120-GALLON CAPACITY BECAUSE CP-204 DOES NOT APPLY TO TANKS UNDER 120-GALLONS.

California Air Resources Board Vapor Recovery Certification Procedure CP-204 is a certification procedure for vapor recovery systems of cargo tanks. The definitions for CP-204 are found in D-200 Definitions for Vapor Recovery Procedures. D-200 Definitions for Vapor Recovery Procedures defines Cargo Tank as "and container, including associated pipes and fittings, that is used for transportation of gasoline on any highway and is required to be certified in accordance with Section 41962 of the California Health and Safety Code." Section 41962 of the California Health and Safety Code states "The performance standards and test procedures adopted by the state board shall be consistent with the regulations adopted by the Commissioner of the California Highway Patrol and the State Fire Marshal pursuant to Division 14.7(commencing with Section 34001) of the Vehicle Code." Section 34003 of the California Vehicle Code defines Cargo tank as "having a volumetric capacity in excess of 120 gallons that is used for the transportation of flammable liquids or combustible liquids." SCAQMD is wrong to prescribe CP-204 certification for metal gasoline transfer tanks because the test does not apply to tanks under 120-gallons. If a person or entity were to apply for CP-204 certification for a tank under 120-gallons they would be denied as the certification procedure is only applicable to cargo tanks as defined as having a capacity over 120-gallons.

Comment 7-3

IV. SCAQMD CANNOT REQUIRE METAL GASOLINE TRANSFER TANKS TO BE INSTALLED BY A LICENSED INSTALLER BECAUSE SUCH LICENSURE DOES NOT EXIST.

Comment 7-4

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SCAQMD claims that the International Code Council provides relevant certifications for the installation of metal gasoline transfer tanks, and this is false. SCAQMD claims that manufacturers develop training programs, but Transfer Flow is a manufacturer of metal gasoline transfer tanks and Transfer Flow is confident that no such certification exists for the installation of our tanks.

Comment 7-4 Cont.

In closing, Transfer Flow is grateful for the opportunity to comment on the proposed rule and proposed amended rules. Please feel free to contact us with any questions regarding our comments.

Sincerely,

Laurel Moorhead

Laurel Moorhead, E.I.T.
Regulatory Compliance Engineer
Transfer Flow Inc.

1444 Fortress Street, Chico, CA 95973 | (530) 893-5209 | (800) 442-0056 | fax (530) 893-0204 | www.TransferFlow.com

Responses to Transfer Flow Inc. Comment Letter, submitted 11/11/21

7-1 Response: Staff provided a response to Transfer Flow extending the comment period to Wednesday, November 17, 2021 via email. Additionally, staff is open to discuss, respond to questions, or take comments during the rule development process.

7-2 Response: Staff disagrees that metal fuel tanks do not permeate and therefore exempt from needing to submit applications for certification. Compliance with the fuel permeation standard of Code of Federal Regulations Title 40 Protection of the Environment §1060.103(f) does not demonstrate that specified and fuel caps do not leak. Additionally, compliance with a fuel tank permeation standard does not mean that a metal fuel tank meets any emission standards for the transfer or dispensing of gasoline.

7-3 Response: Staff disagrees that CARB is required to deny an application for certification of a tank under 120-gallons. California Health and Safety Code § 41962 does not prohibit application of CP-204 (Certification Procedures for Vapor Recovery Systems of Cargo Tanks) to tanks less than 120 gallons. This is evidenced by CP-204 containing performance standards and test procedures applicable to tanks with a capacity less than 120 gallons, including two tables that list a cargo tank range of either "999 or less" or "between 0 to 999 gallons."

7-4 Response: Staff has modified the requirements in paragraphs (i)(3) and (i)(4) for the installer or contractor to complete applicable manufacturer's certification and applicable International Code Council (ICC) program prior to installing, altering, repairing, or replacing CARB certified control equipment. Therefore, the installer or contractor would only be required to obtain the certification if one is available. Manufacturers may wish to develop certification training programs to ensure that their equipment is repaired to manufacturer specification demonstrated by completing a certification program. Additionally, staff has modified the recordkeeping requirements in subparagraph (k)(9)(G) to only maintain records of applicable manufacturer training and any applicable state certification program.

CALIFORNIANS FOR SMART FUELING

Members of the Stationary Source Committee
South Coast Air Quality Management District
21865 Copley Drive
Diamond Bar, CA 91765-4178

Dear Committee Members:

We are members of the Californians for Smart Fueling coalition, a group of organizations and individuals that advocate for the needs of more than 60 million people with disabilities. Our members represent thousands of individuals in America currently living with a disability. We view the growth of mobile fueling as essential to providing equitable access to refueling for drivers with disabilities, which we consider a basic need.

We are very pleased that South Coast AQMD is moving forward with the proposed rule amendments for Rule 461.1. The amendments will allow for more robust mobile fueling operations throughout the Los Angeles basin. We do want to bring attention, however, to a part of the proposal that we believe represents an unnecessary burden that will disproportionately impact the mobility disability community.

The proposal currently requires three different types of permitting/registration: mobile fueler permitting, site permitting, and site owner/operator permitting. It is our strong belief that these bureaucratic requirements will only serve as barriers to the expansion of responsible mobile fueling. In particular, the permit requirement for site owner/operator will likely be a significant impediment to more mobile fueling options.

As you may know, mobile fuelers sometimes hold ad-hoc mobile fueling events at pop-up locations that are intended specifically for drivers with disabilities. These events may be held for just a couple of hours in one day. It can be difficult enough just to find a location that is suitable for these types of events, and as you may know, there are already significant permitting or other requirements from fire regulators. Requiring a site owner or manager to engage with AQMD, a regulatory agency that they might not even be aware of, will likely cause well-intentioned partners to decline to allow these types of operations on their site.

In every other jurisdiction where mobile fueling is allowed, there is no corresponding requirement. We urge this committee to seek a simpler, more streamlined permitting process in which the mobile fueler has the responsibility to obtain the necessary permits--a process which is working well in every other jurisdiction in the United States where mobile fueling occurs.

Best,

DocuSigned by:
Franklin Elieh
CA5ADEE29905464...

Franklin Elieh, co-founder,
Northern California Spinal Cord Injury Foundation (NorCal SCI)

DocuSigned by:
Jennifer Kumiyama
27179C91D55F434...

Jennifer Kumiyama, Advocate

Responses to Californians for Smart Fueling Comment Letter, submitted 11/22/21

The proposed rule language for PR 461.1 has been revised to no longer require a Rule 222 registration for a dispensing location. The owner or operator of a dispensing location will only require a South Coast AQMD permit to operate the mobile fueler if the dispensing location is a major source of emissions requiring permits through the South Coast AQMD Title V Program.

saint clair SYSTEMS
norcross Temperature & Viscosity Control

November 30, 2021

Honorable Chairman Ben Benoit and Board Members
South Coast Air Quality Management District

Re: Public Comments Item 2B-- Proposed Amended Rule 219 – Equipment Not Requiring a Written Permit Pursuant to Regulation II-- OPPOSE unless amended

Dear SCAQMD Board Members:

Saint Clair Systems, Inc. is involved in the design manufacture of viscosity control equipment for fluid dispensing systems. This includes both solvent based and UV/EB cure applications for various customers, some of whom are located in California. We welcome the opportunity to comment on the proposed amendments to Rule 219 – Equipment Not Requiring a Written Permit Pursuant to Regulation II. Unfortunately, our company cannot support the current proposal as it does not take into consideration issues facing the businesses we work with. The current rule treats all coating processes alike regardless of their environmental benefit. UV/EB/LED processes are not formulated with Volatile Organic Compounds (VOCs) or toxics air contaminants. Conversion away from solvent processes benefits the District and your Board has provided incentives in the form of regulatory flexibility through permit exemptions in Rule 219.

According to staff, the current rule language requires a permit for UV/EB/LED operations that are part of operations that also have solvent systems. It is unfair to attribute the emissions of a solvent system to a UV/EB/LED process with zero or near zero emissions simply because they are located within the same facility. This approach discourages facilities who are exploring conversion to UV/EB/LED but are unable to convert the entire facility. Businesses who are willing to invest in clean technologies should be encouraged to do so and saddling with added permit costs will be counterproductive to the District's mission.

We cannot support the rule in its current version because it does not take any of the concerns of our industry into consideration. We ask the Board request that staff add language that would remedy the harm being done to businesses in the South Coast who are looking to partially convert to UV/EB/LED processes. We want to be respectful of staff's recommended priorities. Thus, in the alternative, we ask for a Board resolution to revisit the rule in order to incorporate our proposal, in the first quarter of 2022.

Sincerely,

Michael R. Bonner
Vice President of Engineering & Technology

12427 31 Mile Road • Washington Township, Michigan • 48095

586.336.0700 • www.saintclairsystems.com

Response to Saint Clair Systems Comment Letter, submitted 11/30/21

See Response 1.