SACRAMENTO METROPOLITAN
AIR QUALITY MANAGEMENT DISTRICT

STAFF REPORT

RULE 448 – GASOLINE TRANSFER INTO STATIONARY STORAGE CONTAINERS

RULE 449 – TRANSFER OF GASOLINE INTO VEHICLE FUEL TANKS

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BACKGROUND

Ground level ozone is a secondary pollutant formed from photochemical reactions of nitrogen oxides (NOx) and volatile organic compounds (VOCs) in the presence of sunlight. Ozone is a strong irritant that adversely affects human health and damages crops and other environmental resources. As documented by the U.S. Environmental Protection Agency (EPA) in the most recent Criteria Document for ozone (U.S. EPA 2006), both short-term and long-term exposure to ozone can irritate and damage the human respiratory system, resulting in:

- decreased lung function;
- development and aggravation of asthma;
- increased risk of cardiovascular problems such as heart attacks and strokes;
- increased hospitalizations and emergency room visits; and
- premature deaths.

The District is currently designated as a nonattainment area for both the state and federal ozone standards. Since VOCs are a precursor to ozone, one of the strategies to control ozone pollution is to reduce VOC emissions from existing stationary sources.

Gasoline transfer operations emit VOC when gasoline vapor in the vessel being filled is displaced by the liquid gasoline. Gasoline vapors also contain benzene and other toxic chemicals. Rule 448, Gasoline Transfer into Stationary Storage Containers, controls VOC emissions from the transfer of gasoline from delivery vessels into stationary storage tanks or mobile fuelers (Phase I transfers). Rule 449, Transfer of Gasoline into Vehicle Fuel Tanks, controls VOC emissions from the transfer of gasoline from stationary storage tanks and mobile fuelers into vehicle fuel tanks (Phase II transfers).

Rules 448 and 449 were first adopted by the District on February 5, 1975. Rule 448 was last amended on February 2, 1995, and Rule 449 was last amended on September 26, 2002. These latest amended rules have been incorporated into the State Implementation Plan.

Staff is proposing to amend Rules 448 and 449 to:

- Maintain consistency with state regulations for vapor recovery systems, including the Enhanced Vapor Recovery (EVR) regulations adopted by the California Air Resources Board (CARB);
- Incorporate “all feasible measure” requirements from rules adopted by the San Joaquin Valley Unified Air Pollution Control District (SJVUAPCD) and the South Coast Air Quality Management District (SCAQMD);
- Provide an exemption from Phase II vapor recovery requirements for the dispensing of E85, a petroleum distillate/alcohol blend, into flexible fuel vehicles; and
- Provide an exemption from Phase II vapor recovery requirements for non-retail gasoline dispensing facilities in which 100% of the vehicles refueled are equipped with Onboard Refueling Vapor Recovery (ORVR).

LEGAL MANDATES

Federal Mandates: The District is designated as a nonattainment area for the federal 8-hour ozone standard (69 FR 23858, April 30, 2004). Section 182(b)(3) of the federal Clean Air Act requires the District to require vapor recovery systems on gasoline dispensing operations. Sections 172(c)(1) and 182(b)(2) require the District to adopt Reasonably Available Control

Technology (RACT) for ozone precursors, including RACT for all major sources of VOC and all source categories for which EPA has promulgated a Control Techniques Guidelines (CTG) document. EPA promulgated a CTG for gasoline service stations in November, 1975.

Rules 448 and 449 satisfy the federal mandates for vapor recovery and RACT.

State Mandates:

Serious Nonattainment Plan Requirements: The District is designated as a serious nonattainment area for the state ozone standard. The California Clean Air Act requires areas with this designation to adopt control measures required in sections 40913, 40914, and 40919 of the California Health and Safety Code (HSC):

- HSC Section 40913 requires districts to develop a plan to achieve California's ambient air quality standards by the earliest practicable date.
- HSC Section 40914(b)(2) requires every nonattainment district which cannot achieve a reduction of 5% or more per year in district wide emissions to include in their state attainment plans "every feasible measure" to reduce the emissions of nonattainment pollutants and their precursors. SJVUAPCD Rules 4621 and 4622 and SCAQMD Rule 461 were reviewed for "feasible measures." The proposed amendments will be equivalent to the requirements in SJVUAPCD Rule 4621 and 4622 and SCAQMD Rule 461.
- HSC Section 40919(a)(3) requires districts with serious nonattainment for ozone to adopt Best Available Retrofit Control Technology (BARCT) for all existing permitted sources. The proposed amendments will meet the BARCT requirement.

Transport Mitigation Emission Control Requirements: Title 17, Section 70600 of the California Code of Regulations (CCR) requires that districts within the areas of origin of transported air pollutants, as identified in section 70500(c), include sufficient emission control measures (including "all feasible measures" and BARCT) in their attainment plans for ozone to mitigate the impact of pollution sources within their jurisdictions on ozone concentrations in downwind areas commensurate with the level of contribution. An upwind district shall comply with the transport mitigation planning and implementation requirements set forth in this section regardless of its attainment status, unless the upwind district complies with the requirements of section 70601.

Benzene Airborne Toxic Control Measure (ATCM) for Retail Service Stations: Title 17 CCR Section 93101 requires CARB-certified Phase I and Phase II vapor recovery systems at retail service stations. The proposed amendments are in compliance with the Benzene ATCM because the ORVR exemption is only applicable to non-retail gasoline dispensing facilities. CARB Executive Order G-70-212 states that Phase II vapor recovery systems are not yet certified for the dispensing of E85, and that E85 facilities may continue to operate without Phase II vapor recovery until such time as CARB may certify Phase II vapor recovery systems for use with E85. The proposed E85 exemption for Rule 449 will also expire when CARB certifies a Phase II vapor recovery system for the dispensing of E85.

The proposed amendments are based on all feasible control measures and BARCT requirements, and therefore comply with the state mandates.

ENHANCED VAPOR RECOVERY (EVR)

State law (California Health and Safety Code, Division 26, Part 4, Chapter 3, Article 5) requires control of gasoline vapor emissions. Section 41954 requires CARB to adopt performance standards for certifying vapor recovery systems. Section 41954(g)(1) prohibits local districts from establishing performance standards stricter than those adopted by CARB.

CARB first adopted performance standards for vapor recovery systems in 1975. On April 1, 2001, CARB's regulation to implement EVR (Title 17, California Code of Regulations, Section 94011) took effect. The deadline for Phase I vapor recovery systems to be certified to the new standards was April 1, 2005. By April 1, 2009, all Phase II vapor recovery systems at gasoline dispensing facilities with underground storage tanks must meet the new standards.

An EVR regulation (Title 17, California Code of Regulations, Section 94016) for gasoline dispensing facilities with aboveground storage tanks took effect on July 12, 2008. Facilities with aboveground storage tanks will have until July 12, 2012 to meet these new requirements.

Staff's proposed amendments are consistent with the EVR regulations and associated certification and test procedures.

FEDERAL AND STATE GUIDANCE ON PHASE II EXEMPTIONS

EPA began phasing in Onboard Refueling Vapor Recovery (ORVR) requirements for new light duty vehicles (passenger cars), light duty trucks, medium duty vehicles, and light heavy duty trucks in 1998 (40 CFR Part 86). By 2000, 100% of the new passenger cars sold were required to be equipped with ORVR. Phase-in of ORVR was completed by 2003 for new light duty trucks and by 2006 for medium duty vehicles and light heavy duty trucks.

On December 12, 2006, EPA issued a memorandum (included in Appendix C) to provide guidance concerning the removal of Phase II vapor recovery systems in situations where widespread use of ORVR is demonstrated. Under Section 202(a)(6) of the federal Clean Air Act, EPA may waive the vapor recovery requirements in areas where the agency has determined that ORVR is in widespread use throughout the motor vehicle fleet. Specifically, the guidance suggests that EPA may approve the removal of Phase II vapor recovery requirements in the following circumstances:

- Initial fueling of new vehicles at automobile assembly plants where 95% or more of the vehicle are equipped with ORVR
- Refueling of rental cars at rental car facilities, where 95% or more of the vehicles are equipped with ORVR
- Refueling of flexible fuel vehicles at E85 dispensing pumps

A follow-up memorandum (included in Appendix C), issued by EPA on November 28, 2007, expanded the circumstances under which Phase II vapor recovery requirements may be removed to include corporate or commercial fleets where 95% or more of the vehicles are equipped with ORVR. In addition, CARB Executive Officer James Goldstene sent a letter (included in Appendix C) on February 20, 2008, to all California districts, encouraging them to revise their vapor recovery rules to incorporate exemptions for ORVR fleets and E85.

A vapor recovery system that meets the Phase II standards and specifications, including In-Station Diagnostics, was not certified for use on E85 dispensing facilities by the operative date of the EVR regulations. On July 16, 2008, CARB issued Executive Order G-70-212 (included in Appendix C), which allows E85 dispensing facilities to continue to operate without Phase II vapor recovery until such time as CARB may certify Phase II vapor recovery systems for use with E85. This executive order was based on EPA's guidance letters authorizing districts to amend their rules to exempt E85 because these gasoline dispensing facilities are expected to refuel fleets where 95% or more of the vehicles are equipped with ORVR.

SUMMARY OF RULE AMENDMENTS

The significant proposed amendments are summarized below. Other changes are proposed to maintain consistency with state regulations and certification procedures. A detailed list of changes, including amendments proposed to be consistent with State regulations, is incorporated in Appendix A.

Rule 448

Currently, Rule 448 requires a CARB-certified vapor recovery system to be used when transferring gasoline into a stationary storage container with a capacity of 250 gallons or more. The proposed amendments will lower the applicability of this requirement to include transfer of gasoline into a mobile fueler with a capacity of 120 gallons or more, and expand the requirements to include vapor recovery for "switch loading." Switch loading is the transfer of diesel fuel into a container that previously contained gasoline, a process that expels gasoline vapor from the container being filled. The expanded vapor recovery requirements are consistent with feasible requirements in SJVUAPCD Rule 4621 and SCAQMD Rule 461.

Staff is proposing to divide the vapor recovery requirements of Section 301 into three subsections to incorporate requirements that are unique to underground storage tanks, aboveground storage tanks, and mobile fuelers, and to establish more specific requirements for gasoline delivery vessels. The proposed requirements are consistent with feasible requirements in SJVUAPCD Rule 4621 and SCAQMD Rule 461, and are consistent with current CARB certification requirements.

Staff is proposing to require the use of a vapor recovery system during "pump-out," which is when gasoline is transferred out of a stationary tank or mobile fueler into a stationary tank or delivery vessel. This requirement closes a loophole that exists in the current versions of Rules 448 and 449, and is consistent with SCAQMD Rule 461. Staff is also proposing to implement work practices that will assist in reducing excess emissions from spillage when gasoline is pumped out of vehicle fuel tanks.

Currently, Rule 448 does not require the owner/operator of gasoline dispensing facilities to perform maintenance inspections on the Phase I vapor recovery system. Staff is proposing to implement an inspection program for the owner/operator of the dispensing facility to inspect the Phase I system after receiving a fuel delivery. Should multiple deliveries be made to a given tank in a single day, the owner/operator is only required to inspect a storage tank's Phase I system once per day. Staff believes the Phase I systems are most susceptible to damage when receiving deliveries. The list of items to be inspected is consistent with SDAPCD Rule 61.3.1, SJVUAPCD Rule 4621, and SCAQMD Rule 461. The inspection frequency most closely

matches SDAPCD Rule 61.3.1, which requires inspections at frequencies ranging from weekly to monthly.

The proposed amendments include a requirement that 3 months after the date of adoption, installers/contractors who install or alter vapor recovery systems must be certified by the International Code Council (ICC) for Vapor Recovery System Installation and Repair, and if required by the Executive Order, certified by the system manufacturer; maintain the valid ICC certification; and have on site proof of all required certifications. This requirement is consistent with SJVUAPCD Rule 4621 and SCAQMD Rule 461

The ICC certification test for Vapor Recovery System Testing and Repair is not yet available. Staff is proposing a requirement that 3 months after the certification test becomes available, testers who perform required performance or recertification tests be certified by the International Code Council (ICC) for Vapor Recovery System Testing and Repair. Staff is also proposing that, if required by the Executive Order, testers be certified by the system manufacturer; maintain the valid ICC certification; and have on site proof of all required certifications. This requirement is consistent with SJVUAPCD Rule 4621 and SCAQMD Rule 461.

Staff also included a list of required performance and reverification tests, unless other tests are specified in the applicable CARB Executive Orders. This list is consistent with SJVUAPCD Rule 4621 and SCAQMD Rule 461. Staff is proposing that reverification tests be performed annually, or more frequently as required by the applicable CARB Executive Order. Most facilities are already performing these tests annually as a permit requirement. However, approximately 20 facilities with aboveground storage tanks and only Phase I vapor recovery systems are expected to be impacted by this requirement.

Lastly, the amendments for Rule 448 include a recordkeeping requirement for performance and reverification tests results and maintenance inspection and repair records. Owner/operators are to retain records onsite for a period not less than 3 years (5 years for Title V sources) and make them available for review upon request. This requirement is consistent with Rule 449, SDAPCD Rule 61.3.1, SJVUAPCD Rule 4621, and SCAQMD Rule 461.

Rule 449

Staff is proposing two exemptions from the Phase II vapor recovery requirements. First, the dispensing of E85 would be exempt from the rule until CARB certifies Phase II vapor recovery systems for dispensing E85. This exemption is consistent with CARB Executive Order G-70-212, as well as federal guidance.

Second, the dispensing of gasoline for non-retail facilities where 100% of the vehicles refueled are equipped with ORVR would be exempt from the rule requirements, provided that the owner or operator meets recordkeeping requirements and submits an application pursuant to Rule 201- GENERAL PERMIT REQUIREMENTS for an Authority to Construct and Permit to Operate the gasoline dispensing facility and agrees to comply with the following conditions:

- No fuel shall be dispensed into a vehicle that is not owned or under direct control of the operator, except for a vehicle being used in an emergency;
- No fuel shall be dispensed into a vehicle not equipped with an ORVR system, except for a vehicle being used in an emergency.
- The gasoline dispensing facility shall use nozzles that are part of a CARB certified vapor recovery system, except that the vapor return line shall be sealed off. This ensures that

the nozzles meet CARB performance standards for liquid retention, nozzle spitting, and post-refueling drips.

Although the EPA guidance allows exemptions for as low as 95%, there is a potential emissions increase for the 5% vehicles that are not equipped with ORVR. Therefore, the proposed 100% ORVR exemption was chosen. This level is also consistent with the exemptions in SJVUAPCD Rule 4622 and SCAQMD Rule 461.

An additional exemption included in the amendments provides owners/operators the flexibility to perform minor, routine work on Phase II components, such as replacing any defective nozzles, hoses and breakaways with new or CARB certified re-manufactured components of the same make and model, or alternatives specifically identified in the latest applicable CARB Executive Order, without being ICC certified as an installer/contractor.

Currently, Rule 449 requires a CARB-certified vapor recovery system to be used when transferring gasoline from a storage container with a capacity of 250 gallons or more into a vehicle fuel tank with a capacity of 5 gallons or more. The proposed amendments will lower the applicability of this requirement to include transfer of gasoline from a mobile fueler with a capacity of 120 gallons or more into a vehicle fuel tank with a capacity of 5 gallons or more. This requirement is consistent with feasible requirements in SJVUAPCD Rule 4622 and SCAQMD Rule 461. All mobile fuelers currently operating within the District are in compliance with the proposed requirement.

Under the current rule, operators of retail gasoline dispensing facilities must post a sign warning patrons that topping off vehicle fuel tanks may result in spillage or recirculation of gasoline. Staff proposes to prohibit topping off. This prohibition conforms to EPA Region IX vapor recovery guidelines.

In the current version of Rule 449, the frequency required for gasoline dispensing facilities to perform reverification tests is every six or twelve months, depending on the six-month average of actual monthly gasoline throughput. Staff believes that this provision is no longer necessary due to the improved performance and reliability of Phase II systems as a result of CARB's Enhanced Vapor Recovery Program. Therefore, Staff is proposing to amend this provision so that the testing frequency will be annually, or more frequently as required by the applicable CARB Executive Order. BAAQMD Rule 8-7 and SDAPCD Rule 61.4.1 require only annual testing. SJVUAPCD Rule 4622 requires annual testing except for air-to-liquid ratio or volume-to-liquid ratio on a system with bellows-less nozzles, which is required every six months. (Note: The District no longer has any gasoline dispensing facilities using bellows-less nozzles. In addition, new Phase II EVR systems certified pursuant to CP-201 are required to have nozzles with bellows or mini-boots that form a face seal against the fill pipe.)

The proposed amendments include a requirement that effective 3 months after the date of adoption, installers/contractors who install or alter vapor recovery systems must be certified by the International Code Council (ICC) for Vapor Recovery System Installation and Repair, and if required by the Executive Order, certified by the system manufacturer; maintain the valid ICC certification; and have on site proof of all required certifications. This requirement is consistent with SJVUAPCD Rule 4622 and SCAQMD Rule 461.

The ICC certification test for Vapor Recovery System Testing and Repair is not yet available. Staff is proposing a requirement that 3 months after the certification test becomes available, testers who perform required performance or recertification tests be certified by the International

Code Council (ICC) for Vapor Recovery System Testing and Repair. Staff is also proposing that, if required by the Executive Order, testers be certified by the system manufacturer; maintain the valid ICC certification; and have on site proof of all required certifications. This requirement is consistent with SJVUAPCD Rule 4622 and SCAQMD Rule 461.

EMISSIONS IMPACT

The 2008 emission inventory for gasoline dispensing operations in Sacramento County, including Phase I and Phase II emissions, is shown in the following table.

EIC Code	Description	2008 Annual VOC Emissions (tons per year)
330-374-1100-0000	Gasoline Dispensing Tanks – Working Losses	44
330-378-1100-0000	Vehicle Refueling – Vapor Displacement Losses, Gasoline	280
330-376-1100-0000	Gasoline Dispensing Tanks – Breathing Losses	34
330-380-1100-0000	Vehicle Refueling – Spillage, Gasoline	58
	Total:	416

The emission inventory takes into account the effect of controls that are already in place. Existing vapor recovery standards have reduced VOC emissions by 3,360 tons per year in the 2008 inventory. These rules achieved the second highest VOC benefit when compared to all other district rules (Rule 447, Organic Liquid Loading is the highest). These rules also reduce the emissions of benzene and other toxic air contaminants. Even after controls, this is the third highest VOC emissions category subject to District control (behind solvents and architectural coatings) and is one of the top ten VOC sources in the Sacramento region.

The proposed amendments improve the maintenance of vapor recovery systems and improve the enforceability of existing provisions. There are no additional emission reductions claimed from the amendments to Rules 448 and 449 that are proposed for consistency with CARB EVR regulations or to improve maintenance and enforceability. No excess emissions are expected from the proposed exemptions in Rule 449 for dispensing into 100% ORVR vehicles and E85 dispensing because ORVR systems on such vehicles provide emission reductions equivalent to Phase II vapor recovery. An analysis by NESCAUM (see reference 9) shows that Phase II vapor recovery is slightly less effective than ORVR alone.

SOCIOECONOMIC IMPACT ANALYSIS

California Health and Safety Code Section 40728.5 requires a district to perform an assessment of socioeconomic impacts before adopting, amending or repealing a rule that will significantly affect air quality or emission limitations. The District Board is required to actively consider the socioeconomic impacts of the proposal and make a good faith effort to minimize adverse socioeconomic impacts. HSC Section 40728.5 defines “socioeconomic impact” to mean the following:

1. The type of industry or business, including small business, affected by the proposed rule or rule amendments.
2. The impact of the proposed rule or rule amendments on employment and the economy of the region.
3. The range of probable costs, including costs to industry or business, including small business.
4. The availability and cost-effectiveness of alternatives to the proposed rule or rule amendments.
5. The emission reduction potential of the rule or regulation.
6. The necessity of adopting, amending, or repealing the rule or regulation to attain state and federal ambient air standards.

Type of industries or business, including small business, affected by the rule amendments: The rule amendments apply to all gasoline dispensing facilities that are required to have vapor recovery systems. There are approximately 546 permitted retail and non-retail facilities in the District. Installation and maintenance contractors are also affected by these amendments. Small businesses include installers/contractors and testers. There are approximately 140 contractors for Healy and VST and three contracting firms for VeederRoot, in Sacramento County and the surrounding areas.

Impact of rule amendments on employment and the economy in the District: The proposed amendments to the rule are not expected to have any impact on employment or economy in the District. EVR upgrades of Phase II vapor recovery systems are already required by CARB regulations (17 CCR 94011).

Range of probable costs of rule amendments: The proposed amendments for both Rules 448 and 449 include requirements for installers/contractors and testers to obtain certifications from the International Code Council, which will cost these parties approximately $75 every two years. Many are already certified as a result of certification requirements in other districts.

Gas station owners are already required to perform daily maintenance inspections of Phase II systems under Rule 449. Staff is proposing an additional inspection of Phase I items after receiving a fuel delivery under Rule 448. It is estimated that such inspections will require an additional 10 minutes per inspection per facility. Assuming a labor rate of $10 per hour, the additional cost per facility for performing these inspections is estimated to be $1.67 per inspection ($87 per year). Typically, these inspections are already being performed and recorded in conjunction with the delivery truck driver, so the cost impact should be minimal.

Over 96% of gasoline dispensing facilities in the District are equipped with both Phase I and Phase II Vapor Recovery Systems, and are already subject to testing and recordkeeping requirements under Rule 449. There are 19 facilities that are exempt from Phase II Vapor Recovery under Rule 449. Under the proposed amendments to Rule 448, these facilities will be required to perform annual reverification tests and maintain records of inspections, tests, maintenance, and repairs. It is assumed that 0.5 hours per week will be required to maintain the records. At a labor rate of $10 per hour, the additional cost per facility for maintaining the records is estimated to be $260 per year. The costs to perform annual reverification tests are estimated to be $600.

Although the proposed amendments will lower the applicability threshold for mobile fuelers to units with a capacity of 120 gallons or more, the one mobile fueler within the District is already in compliance with the proposed requirements and will not incur any additional costs.

The proposed exemptions in Rule 449 for E85 dispensing and dispensing to 100% ORVR-equipped vehicles will result in a net cost savings to facilities that can use these exemptions to avoid the cost of installing and maintaining Phase II vapor recovery systems. ORVR-exempt facilities will incur a fee of $634 to modify their permits. The replacement of nozzles costs from $1,600 to $9,600. The savings from avoiding an EVR upgrade ranges from $17,000 to $85,000 including added savings from reduced testing discussed below.

Currently, Rule 449 requires gasoline dispensing facilities to perform reverification tests every six months if the six month average monthly gasoline throughput is 100,000 gallons or more. Under the proposed amendment, these facilities will be required to test annually, unless more frequent testing is required by the CARB Executive Order. The cost savings of reducing the frequency of reverification tests from every six months to annual, per facility, ranges from $1,100 to $4,500 for tester fees and $1,268 for District source test fees.

The costs and cost savings are presented in the following table.

Item	Costs
Phase I only, aboveground storage tanks	
Annual Phase I testing	$600/yr
Maintenance Records	$260/yr
Phase I inspections	$87/yr
District Source Test Fee	$1,268/yr
Facilities using ORVR exemption	
Permit modification	$634
EVR certified nozzles	$1,600 - $9,600
Phase I inspections	$87/yr
Phase II EVR upgrade	$17,000 - $85,000 savings
Phase II annual testing	$1,100 - $4,500/yr savings
District Source Test Fee	$1,268/yr savings
Facilities using E85 exemption	
Phase I inspections	$87/yr
Phase II EVR upgrade	$17,000 - $85,000 savings
Phase II annual testing	$1,100 - $4,500/yr savings
District Source Test Fee	$1,268/yr savings
Facilities ≥ 100,000 gal/month throughput	
Phase I inspections	$87/yr
Phase II annual testing	$1,100 - $4,500/yr savings
District Source Test Fee	$1,268/yr savings
Installers/contractors and testers	
ICC certification	$75 every two years

Availability and cost-effectiveness of alternatives: Although there are fewer constraints on the proposed exemptions, monitoring, and recordkeeping requirements, Staff cannot include more stringent vapor recovery standards than those being proposed because HSC Section 41954(g)(1) prevents districts from adopting or enforcing performance standards for vapor recovery systems that are stricter than those adopted by CARB. The adoption of less stringent vapor recovery standards would conflict with the state Benzene ATCM for Retail Service Stations (17 CCR 93101).

Staff is constrained in the selection of alternatives by two additional considerations. First, Rules 448 and 449 have been approved by EPA into the State Implementation Plan (SIP). Second, Staff has determined that adoption of requirements less stringent than CARB's EVR regulations would not satisfy the District's obligations to implement RACT under Clean Air Act Sections 172(c)(1) and 182(b)(2), and to implement BARCT under HSC Section 40919(a)(4).

One alternative to the proposed amendments is not to amend the current rules or not to adopt specific provisions. If this alternative were selected, the rule would not include measures (demonstrated to be feasible in other districts) to improve compliance and reduce emissions. HSC Section 40914(b)(2) requires the District to adopt "all feasible measures." The proposed amendments include feasible measures that have been adopted by the SCAQMD, SJVUAPCD, and SDAPCD.

In Rule 448, these feasible measures include: expanded applicability to mobile fuelers with a capacity of 120 gallons or more; separate requirements for underground tanks, aboveground tanks, and mobile fuelers; more specific requirements for delivery vessels; prohibition of sale; maintenance inspections; and ICC certification of installers/contractors and testers. In Rule 449, these feasible measures include: expanded applicability to mobile fuelers with a capacity of 120 gallons or more; prohibition of sale; and ICC certification of installers/contractors and testers. The additional costs to affected parties are minimal, as discussed in the preceding section, Range of Probable Costs.

The proposed ORVR exemption in Rule 449 is for non-retail dispensing facilities in which 100% of the vehicles being refueled are equipped with ORVR, consistent with the South Coast and San Joaquin district rules. Although EPA guidance allows exemptions for dispensing facilities in which 95% or more of the vehicles are equipped with ORVR, selection of the 95% alternative could potentially increase overall emissions. A simplified analysis shows that the refueling emissions from a facility in which 5% of the vehicles are not ORVR-equipped would be 95% greater if Phase II controls are not used than for the same facility using Phase II controls.

Staff has proposed a requirement in Rule 448 to prohibit the use of equipment with major defects listed on the VRED list. This requirement conforms to EPA Region IX guidelines, and if it were not included, would result in a disapproval of the rule when it is submitted for inclusion in the SIP.

Emission reduction potential: The proposed amendments improve the maintenance of vapor recovery systems and improve the enforceability of existing provisions. There are no additional emission reductions claimed with the amendments to Rules 448 and 449. No excess emissions are expected from the proposed exemptions in Rule 449 for dispensing into 100% ORVR vehicles and E85 dispensing because ORVR systems on such vehicles provide emission reductions equivalent to Phase II vapor recovery

Necessity of adopting, amending, or repealing: Staff finds that the proposed amendments to the gasoline dispensing rules are necessary to:

- Maintain consistency with state regulations for vapor recovery systems, including the Enhanced Vapor Recovery regulations adopted by the California Air Resources Board (CARB);
- Incorporate "all feasible measure" requirements from rules adopted by the San Joaquin Valley Unified Air Pollution Control District (SJVUAPCD) and the South Coast Air Quality Management District (SCAQMD);

- Provide an exemption from Phase II vapor recovery requirements for the dispensing of E85, a petroleum distillate/alcohol blend, into flexible fuel vehicles; and
- Provide an exemption from Phase II vapor recovery requirements for non-retail gasoline dispensing facilities in which 100% of the vehicles refueled are equipped with Onboard Refueling Vapor Recovery (ORVR).

ENVIRONMENTAL REVIEW AND COMPLIANCE

Staff finds that the proposed rules are exempt from the California Environmental Quality Act as an action by a regulatory agency for protection of the environment (Class 8 Categorical Exemption, Section 15308 State CEQA Guidelines) and because it can be seen with certainty that there is no possibility that the activity in question may have a significant adverse effect on the environment (Section 15061(b)(3), State CEQA Guidelines).

California Public Resources Code (Section 21159) requires an environmental analysis of the reasonably foreseeable methods of compliance. The proposed rules will not increase emissions and will not cause any other significant adverse effects on the environment; therefore Staff has concluded that no environmental impacts will be caused by compliance with the proposed rules.

FINDINGS

The California Health and Safety Code, Division 26, Air Resources, requires local Districts to comply with a rule adoption protocol as set forth in Section 40727 of the Code. This section has been revised through legislative mandate to contain six findings that the District must make when developing, amending, or repealing a rule. These findings, effective January 1, 1992, and their definitions are listed in the table below.

Rule 448

FINDING	FINDING DETERMINATION
Authority: The District must find that a provision of law or of a state or federal regulation permits or requires the District to adopt, amend, or repeal the rule.	The District is authorized to amend Rule 448 by Health and Safety Code Sections 40001, 40702, 40716, 41010, and 41013. [Health and Safety Code Section 40727(b)(2)].
Necessity: The District must find that the rulemaking demonstrates a need exists for the rule, or for its amendment or repeal.	The amendments are necessary to maintain consistency with CARB regulations, including Enhanced Vapor Recovery, and to incorporate "all feasible measures." [Health and Safety Code Section 40727(b)(1)].
Clarity: The District must find that the rule is written or displayed so that its meaning can be easily understood by the persons directly affected by it.	Staff has reviewed the proposed rule amendments and determined that they can be easily understood by the affected industry. In addition, the record contains no evidence that the persons directly affected by the rule cannot understand it. [Health and Safety Code Section 40727(b)(3)].
Consistency: The rule is in harmony with, and not in conflict with or contradictory to, existing statutes, court decisions, or state or federal regulations.	The proposed rule amendments do not conflict with and are not contradictory to, existing statutes, court decisions, or state or federal regulations. [Health and Safety Code Section 40727(b)(4)].

FINDING	FINDING DETERMINATION
Non-Duplication: The District must find that either: 1) The rule does not impose the same requirements as an existing state or federal regulation; or (2) that the duplicative requirements are necessary or proper to execute the powers and duties granted to, and imposed upon the District.	The proposed rule amendments do not impose the same requirements as any federal regulation. Some of the rule requirements duplicate state regulations in Sections 94011, 94014, and 94016 of Title 17 of the California Code of Regulations. Staff has included these duplicative requirements for completeness and has found that they are necessary and proper to execute the powers and duties granted to and imposed upon the District. [HSC Section 40727(b)(5)].
Reference: The District must refer to any statute, court decision, or other provision of law that the District implements, interprets, or makes specific by adopting, amending or repealing the rule.	Federal Clean Air Act sections 182(b)(3), 172(c)(1), and 182(b)(2); California Health and Safety Code Sections 40913, 40914(b)(2), 40919(a)(3), and 41950. [Health and Safety Code Section 40727(b)(6)].
Additional Informational Requirements (Health and Safety Code Section 40727.2): In complying with HSC Section 40727.2, the District must identify all federal requirements and District rules that apply to the same equipment or source type as the proposed rule or amendments.	Sources subject to this rule are also subject to District Rule 202, New Source Review, including the requirement for Best Available Control Technology (BACT). For major sources, BACT is also a federal requirement. A summary of these requirements is included in Appendix B.

Rule 449

FINDING	FINDING DETERMINATION
Authority: The District must find that a provision of law or of a state or federal regulation permits or requires the District to adopt, amend, or repeal the rule.	The District is authorized to amend Rule 449 by Health and Safety Code Sections 40001, 40702, 40716, 41010, and 41013. [Health and Safety Code Section 40727(b)(2)].
Necessity: The District must find that the rulemaking demonstrates a need exists for the rule, or for its amendment or repeal.	The amendments are necessary to maintain consistency with CARB regulations, including Enhanced Vapor Recovery; to incorporate "all feasible measures"; and to provide an exemption from Phase II vapor recovery for the dispensing of E85 and the refueling of 100% ORVR-equipped vehicles at non-retail facilities. [Health and Safety Code Section 40727(b)(1)].
Clarity: The District must find that the rule is written or displayed so that its meaning can be easily understood by the persons directly affected by it.	Staff has reviewed the proposed rule amendments and determined that they can be easily understood by the affected industry. In addition, the record contains no evidence that the persons directly affected by the rule cannot understand it. [Health and Safety Code Section 40727(b)(3)].
Consistency: The rule is in harmony with, and not in conflict with or contradictory to, existing statutes, court decisions, or state or federal regulations.	The proposed rule amendments do not conflict with and are not contradictory to, existing statutes, court decisions, or state or federal regulations. [Health and Safety Code Section 40727(b)(4)].
Non-Duplication: The District must find that either: 1) The rule does not impose the same requirements as an existing state or federal regulation; or (2) that the duplicative requirements are necessary or proper to execute the powers	The proposed rule amendments do not impose the same requirements as any federal regulation. Some of the rule requirements duplicate state regulations in Sections 94011 and 94016 of Title 17 of the California Code of Regulations. Staff has

FINDING	FINDING DETERMINATION
and duties granted to, and imposed upon the District.	included these duplicative requirements for completeness and has found that they are necessary and proper to execute the powers and duties granted to and imposed upon the District. [HSC Section 40727(b)(5)].
Reference: The District must refer to any statute, court decision, or other provision of law that the District implements, interprets, or makes specific by adopting, amending or repealing the rule.	Federal Clean Air Act sections 182(b)(3), 172(c)(1), and 182(b)(2); California Health and Safety Code Sections 40913, 40914(b)(2), 40919(a)(3), and 41950. [Health and Safety Code Section 40727(b)(6)].
Additional Informational Requirements (Health and Safety Code Section 40727.2): In complying with HSC Section 40727.2, the District must identify all federal requirements and District rules that apply to the same equipment or source type as the proposed rule or amendments.	Sources subject to this rule are also subject to District Rule 202, New Source Review, including the requirement for Best Available Control Technology (BACT). For major sources, BACT is also a federal requirement. A summary of these requirements is included in Appendix B.

REFERENCES

1. Air Resources Board. Draft Letter from James Goldstene, Executive Officer to All Local Air District Air Pollution Control Officers, February 20, 2008.

2. United States EPA. Memorandum: Removal of Stage II Vapor Recovery in Situations Where Widespread Use of Onboard Refueling Vapor Recovery is Demonstrated, December 12, 2006.

3. United States EPA. Memorandum: Removal of Stage II Vapor Recovery from Refueling of Corporate Fleets. November 28, 2007.

4. South Coast AQMD, Final Staff Report for: Proposed Amended Rule 461 – Gasoline Transfer and Dispensing, February, 2008.

5. San Joaquin Valley Unified APCD, Final Draft Staff Report for Revised Proposed Amendments to Rule 4622 – Gasoline Transfer into Motor Vehicle Fuel Tanks, December, 2007.

6. San Diego APCD, Final Draft Rule 61.4.1- Transfer of Gasoline From Stationary Underground Storage Tanks Into Vehicle Fuel Tanks, March 2008.

7. San Diego APCD, Final Draft Rule 61.3.1- Transfer of Gasoline into Stationary Underground Storage Tank, March 2006.

8. Bay Area AQMD, Final Draft Staff Report for Proposed Amendments to Regulation 8, Rule 7 – Gasoline Dispensing Facilities. October, 2002.

9. Skelton, E., and Rector, L., Northeast States for Coordinated Air Use Management (NESCAUM), “Onboard Refueling Vapor Recovery Systems Analysis of Widespread Use,” August 20, 2007.

APPENDIX A

LIST OF CHANGES TO RULE 448

EXISTING SECTION NUMBER	NEW SECTION NUMBER	PROPOSED CHANGES
101	Same	Revised to reflect added requirements for transfers from delivery vessels and vehicle fuel tanks into stationary storage containers and delivery vessels as well as pump-out from any stationary storage container, mobile fueler, or vehicle fuel tank.
N/A	102	Sets the applicability to the transfer of gasoline or switch loading from any delivery vessel into any stationary storage container with a capacity ≥ 250 gallons or mobile fueler with a capacity ≥ 120 gallons. The rule also applies to "pump-out" of stationary storage tanks, mobile fuelers, or vehicle fuel tanks.
N/A	202	Added definition of CARB as the California Air Resources Board.
N/A	203	Added definition of CARB Certified, consistent with SCAQMD Rule 461.
N/A	204	Added definition of Delivery Vessel, consistent with Rule 449 – TRANSFER OF GASOLINE INTO VEHICLE FUEL TANKS.
N/A	205	Added definition of Dry Break, consistent with SCAQMD Rule 461.
N/A	206	Added definition of Executive Order, consistent with SDAPCD Rule 61.3.1.
202	N/A	Eliminated definition of Existing Vapor Recovery System. This definition is no longer needed.
203	207	Revised definition of Gasoline to include petroleum distillate/alcohol blend, consistent with SDAPCD Rule 61.3.1.
N/A	208	Added definition of Gasoline Dispensing Facility, consistent with SCAQMD Rule 461.
204	209	Section renumbered.
N/A	210	Added definition of Installer/Contractor similar to SCAQMD Rule 461, but including "repair" and "replacement" for completeness.
205	211	Section renumbered.
N/A	212	Added definition of Mobile Fueler, consistent with SJVUAPCD Rule 4621.
206	N/A	Eliminated definition of New Vapor Recovery System. This definition is no longer needed.
207	213	Section renumbered.
N/A	214	Added definition of Rebuild/Rebuilt, consistent with SCAQMD Rule 461.
N/A	215	Added definition of Spill Container, consistent with SCAQMD Rule 461.
208	216	Section renumbered.
N/A	217	Added definition of Switch Loading, consistent with SJVUAPCD Rule 4621.
N/A	218	Added definition of Tester as any person who conducts performance or reverification tests as required by this rule or by a CARB Executive Order.
N/A	219	Added definition of Vapor Recovery Equipment Defects (VRED) List as a list of defects identified by CARB and incorporated by reference into Title 17, CCR Section 94006.

EXISTING SECTION NUMBER	NEW SECTION NUMBER	PROPOSED CHANGES
209	220	Added definition of vapor tight for delivery vessels, consistent with Health and Safety Code Section 41962(h) and CARB CP-204. Revised the definition of vapor tight for all other operations to a concentration less than 10,000 ppm as methane (not propane) above background, consistent with SCAQMD Rule 461, SJVUAPCD Rule 4621, and District Rule 447 – ORGANIC LIQUID LOADING.
301	Same	Revised section to include switch loading, replace "tank truck or trailer" with "delivery vessel", and include requirements for mobile fuelers with capacities ≥ 120 gallons.
301.1	Same	Revised section to require CARB certified Phase I vapor recovery for underground storage tanks and changed efficiency to 98%, consistent with CARB CP-201. Moved applicable requirements from Section 303 and revised to be consistent with SCAQMD Rule 461.
301.2	Same	Added section to require CARB certified Phase I vapor recovery for aboveground storage tanks with an efficiency of 95%. Moved applicable requirements from Section 303 and revised to be consistent with SCAQMD Rule 461.
N/A	301.3	Added section to require CARB certified Phase I vapor recovery for mobile fuelers with an efficiency of 95%. Moved applicable requirements from Section 303 and revised to be consistent with SCAQMD Rule 461.
302	Same	Revised section to include requirements for delivery vessels, other than mobile fuelers (which are now covered under Section 301.3) to be CARB certified and comply with equipment and maintenance requirements, consistent with SCAQMD Rule 461.
303	N/A	Deleted Other Equipment Requirements for stationary storage containers, which are now covered in Sections 301.1 and 301.2.
304	303	Revised minimum pressure and vacuum settings, consistent with CARB CP-201 and CP-206.
N/A	304	Added a prohibition of sale and marking/identification requirements, consistent with HSC Sections 41854(f) and 41960.2(b).
N/A	305.1	Added new requirement that no person shall perform or allow a pump-out of a stationary storage container or mobile fueler, unless using a vapor recovery system capable of returning the displaced vapors to the storage container being pumped out. This requirement closes a loophole that exists in the current versions of Rule 448 and 449, and is consistent with SCAQMD Rule 461.
N/A	305.2	Added a work practice requirement to prevent excessive spillage of liquid when pumping out vehicle fuel tanks.
N/A	306	Added new requirement that owner/operators of gasoline dispensing facilities shall perform maintenance inspections after receiving a fuel delivery to maintain the vapor recovery system in good working order. Added provisions, consistent with Rule 449, regarding tagging, removal from service, and repair of defective components.
N/A	307	Added provision, consistent with Rule 449 and HSC Section 41960.2(d), prohibiting the use of a vapor recovery system or component with a major defect on the VRED list. This provision is necessary for SIP

EXISTING SECTION NUMBER	NEW SECTION NUMBER	PROPOSED CHANGES
		approval, per EPA Region IX guidance.
400	Same	Revised section, Rule 448 now includes administrative requirements.
N/A	401	Added new requirement that effective 3 months after date of adoption, Installers/Contractors must be ICC certified, and, if required by Executive Order, manufacturer certified. Testers must be certified by 3 months after a certification test is available. Also must maintain proof of certification on site, consistent with SCAQMD Rule 461 and SJVUAPCD Rule 4621.
N/A	402	Added Notification of Testing provision, consistent with Rule 449.
N/A	403	Added Test Requirements section to list all performance and reverification tests required to pass successfully by the facility.
500	Same	Revised section to update test methods to the most current approved versions.
501.1	Same	Revised section to update ASTM method reference to the most recent version.
501.2	Same	Added separate method, CARB CP-204.3, for determining leak tightness for delivery vessels, consistent with Health and Safety Code Section 41962(h) and CARB CP-204. All other operations use EPA Method 21 to determine vapor tightness.
N/A	501.3 – 501.6	Added list of applicable test methods for performance and reverification tests.
N/A	501.7	Added to reference additional or complementary test methods of the applicable CARB Executive Orders.
N/A	501.8	To clarify enforceability, added paragraph stating that where multiple test methods are specified, a violation established by any one of the test methods constitutes a violation of the rule.
N/A	502	Added Recordkeeping requirement for facilities to maintain records on-site for a period not less than 3 years (5 years for Title V sources) and make available for review upon request, including but not limited to: performance and reverification test results, maintenance and repair records, and maintenance inspection reports.

LIST OF CHANGES TO RULE 449

EXISTING SECTION NUMBER	NEW SECTION NUMBER	PROPOSED CHANGES
111	N/A	Eliminated exemption for Odd Fill Configuration, which is no longer necessary because there aren't any configurations that can't comply.
112	111	Section renumbered.
113	112	Section renumbered.
N/A	113	Added exemption from Phase II vapor recovery requirement for E85 dispensing, consistent with CARB Executive Order G-70-212 and federal guidance.
N/A	114	Added exemption from Phase II vapor recovery requirement for non-retail gasoline dispensing facilities refueling 100% ORVR-equipped vehicles, consistent CARB and federal guidance, SJVUAPCD Rule 4622 and SCAQMD Rule 461.
N/A	115	Added exemption from ICC certification for owners/operators and their direct employees when replacing nozzles, hoses and breakaways with new or CARB certified re-manufactured components.
N/A	202	Added definition of CARB as the California Air Resources Board.
N/A	203	Added definition of CARB Certified, consistent with SCAQMD Rule 461.
202	204	Added "trailer, or rail car" to the definition of delivery vessel.
N/A	205	Added definition for E85, consistent with SCAQMD Rule 461, with reference to the definition in Title 13, CCR Section 2292.4.
203	206	Section renumbered.
204	207	Section renumbered.
N/A	208	Added definition of Executive Order, consistent with SDAPCD Rule 61.3.1.
205	N/A	Eliminated definition of Existing Vapor Recovery System. This definition is no longer needed.
206	209	Revised definition of Gasoline to include petroleum distillate/alcohol blend, consistent with SDAPCD Rule 61.4.1.
207	210	Revised to replace the term "intermediate fueller" with "mobile fueler."
208	211	Section renumbered.
N/A	212	Added definition of Installer/contractor similar to SCAQMD Rule 461, but including "repair" and "replacement" for completeness.
209	N/A	Eliminated definition of Intermediate Fueller, which is no longer used.
210	213	Section renumbered.
N/A	214	Added definition of Mobile Fueler, consistent with SJVUAPCD Rule 4622.
211	215	Revised to reference definition in Section 415 of the California Vehicle Code.
212	N/A	Eliminated definition of New Vapor Recovery System. This definition is no longer needed because the requirements for all systems, new or existing, are now the same.

EXISTING SECTION NUMBER	NEW SECTION NUMBER	PROPOSED CHANGES
N/A	216	Added definition of ORVR, consistent with SDAPCD Rule 61.4.1
N/A	217	Added definition of Owner/Operator, consistent with SCAQMD Rule 461.
N/A	218	Added definition of Rebuild/Rebuilt, consistent with SCAQMD Rule 461.
N/A	219	Added definition of Retail Gasoline Dispensing Facility, consistent with SJVUAPCD Rule 4622.
213	220	Section renumbered.
N/A	221	Added definition of Summer Fuel, consistent with SDAPCD Rule 61.4.1. This definition is now used in the Standards section.
N/A	222	Added definition of Tester as any person who conducts performance or reverification tests as required by Rule 449 or by a CARB Executive Order.
N/A	223	Added definition of Topping Off, consistent with SDAPCD Rule 61.4.1.
N/A	224	Added definition of Vapor Recovery Equipment Defects (VRED) List as a list of defects identified by CARB and incorporated by reference into Title 17, CCR Section 94006.
214	225	Revised "as propane" to "as methane" to correct error in previous version of the rule.
N/A	226	Added definition of Winter Fuel, consistent with SDAPCD Rule 64.4.1. This definition is now used in the Standards section.
301	Same	Revised section to require CARB certified vapor recovery systems for mobile fuelers with a capacity ≥ 120 gallons, consistent with SCAQMD Rule 461 and SJVUAPCD Rule 4622.
N/A	301.1	Added section for vapor recovery systems using summer fuel to have 95% control efficiency by weight and mass emission factor not exceeding 0.38 pounds of vapors per 1,000 gallons of gasoline, consistent with CARB CP-201. The mass emission factor is not included in Rule 448 because it is equivalent to the efficiency for both summer and winter fuel.
N/A	301.2	Added section for vapor recovery systems using winter fuel to have 95% control efficiency by weight or mass emission factor not exceeding 0.38 pounds of vapors per 1,000 gallons of gasoline, consistent with CARB CP-201. The mass emission factor is not included in Rule 448 because it is equivalent to the efficiency for both summer and winter fuel.
302	Same	Revised section to include mobile fuelers, consistent with SCAQMD Rule 461 and SJVUAPCD Rule 4622.
302.1	Same	Revised section to include Executive Orders, consistent with SCAQMD Rule 461.
302.2	Same	Revised to include reference to the VRED List.
303.1	Same	Removed past effective date.
303.2	Same	Revised to include reference to the VRED List. Deleted requirement to shutdown for a defect not on the VRED List, as this requirement was in conflict with Section 41960.2(e) of the California Health and Safety Code.

EXISTING SECTION NUMBER	NEW SECTION NUMBER	PROPOSED CHANGES
304	Same	Revised to include reference to the VRED List and change authority from APCO to operator shall mark system or component "Out of Order".
305	Same	Revised section to include prohibition of topping off vehicle fuel tanks to prevent excess emissions. This prohibition is consistent with SJVUAPCD Rule 4622, SDAPCD Rule 61.4.1, and EPA Region IX guidance.
N/A	307	Added a prohibition of sale and marking/identification requirements, consistent with HSC Sections 41854(f) and 41960.2(b).
N/A	308	Added section requiring the owner/operator of a non-retail GDF claiming the 100% ORVR exemption to modify the facility permit to include conditions require the facility to: 1) not dispense fuel into a vehicle that is not owned or under the direct control of the operator, except for a vehicle being used in an emergency, 2) not dispense fuel into a vehicle not equipped with an ORVR system, except for a vehicle being used in an emergency, and 3) use nozzles that are part of a CARB certified vapor recovery system, except that the vapor return line shall be sealed off. These requirements are consistent with SCAQMD Rule 461.
401	N/A	Eliminated Compliance Schedule because these dates have passed.
402	401	Section renumbered.
402.2	401.2	Revised section title to Initial Tests, and clarified that these tests are required within 30 days of completion or modification of any vapor recovery system.
402.3	401.3	Revised section title to Testing Frequency, and changed frequency for facilities to pass reverification tests annually, or more frequently as required by the applicable CARB Executive Order.
N/A	402	Added new requirement, effective 3 months after date of adoption, Installers/Contractors must be ICC certified, and, if required by Executive Order, manufacturer certified. Testers must be manufacturer certified if required by Executive Order, and 3 months after certification test is available must be ICC certified for Testing and Repair. Also must maintain proof of certification on site, consistent with SCAQMD Rule 461 and SJVUAPCD Rule 4622.
403.1 – 403.2	Same	Revised section to include IOM and CP-206 requirements.
501.1	Same	Revised section to update ASTM method reference to the most recent version.
501.2	Same	Revised to remove TP-204.3 for vapor tightness because this method does not measure organic compound concentrations.
501.3	Same	Revised section to include TP-206.3.
501.4	Same	Corrected typographical error by changing TP-201 to TP-201.4.
N/A	501.8	Added section requiring different or additional test methods if specified in the applicable Executive Order, consistent with SJVUAPCD Rule 4622.
N/A	501.9	To clarify enforceability, added paragraph stating that where multiple

EXISTING SECTION NUMBER	NEW SECTION NUMBER	PROPOSED CHANGES
		test methods are specified, a violation established by any one of the test methods constitutes a violation of the rule.
502	Same	Revised to require keeping records on-site and making them available to the APCO immediately upon request.
502.2	Same	Revised to include reference to the VRED List.
502.3	Same	Revised to delete paragraph (d) because it duplicated paragraph (b).
N/A	503	Added section to require recordkeeping for facilities claiming the 100% ORVR exemption, consistent with SCAQMD Rule 461.

Appendix B-1

California HSC Section 40727.2 Matrix
Proposed Rule 448- Gasoline Transfer into Stationary Storage Containers

Elements of comparison	Specific Provisions	Comparative Requirements	
		Proposed Rule 448	**Best Available Control Technology (BACT)**
Exemptions		Implements of Husbandry	10 lbs VOC per day
Emission Limits	Emission Reductions	CARB certified vapor recovery system with a minimum volumetric efficiency of 98% for underground tanks, 95% for aboveground tanks, and 95% for mobile fuelers.	CARB certified vapor recovery equipment that achieves at least 95% efficiency
Testing	Equipment must be in proper operating order	Require annual testing of all stations to ensure that equipment is operating in accordance with CARB certification	Equipment must operate in accordance with CARB certification and Executive Orders without a substantial defect
Recordkeeping		Three years (five years for Title V sources)	

Appendix B-2

California HSC Section 40727.2 Matrix
Proposed Rule 449-Transfer of Gasoline into Vehicle Fuel Tanks

Elements of comparison	Specific Provisions	Comparative Requirements	
		Proposed Rule 449	**Best Available Control Technology (BACT)**
Exemptions		• E85 • 100% ORVR facilities • Emergency motor vehicles • Implements of Husbandry • Six month average gasoline throughput of less than 100,000 gallons exempt from maintenance inspections on weekends and holidays	10 lbs VOC per day
Emission Limits	Emission Reductions	CARB certified vapor recovery system with minimum 95% efficiency by weight	CARB certified vapor recovery equipment that achieves at least 95% efficiency
Testing	Equipment must be in proper operating order	Require annual testing of all stations to ensure that equipment is operating in accordance with CARB certification	Equipment must operate in accordance with CARB certification and Executive Orders without a substantial defect
Recordkeeping		Three years (five years for Title V sources)	

APPENDIX C

CARB and EPA Letters Regarding Phase II Exemptions

Linda S. Adams
Secretary for
Environmental Protection

Air Resources Board

Mary D. Nichols, Chairman
1001 I Street • P.O. Box 2815
Sacramento, California 95812 • www.arb.ca.gov

Arnold Schwarzenegger
Governor

February 20, 2008

Addressees: All Local Air District Air Pollution Control Officers (APCO)

Dear APCO:

I am writing to encourage you to revise your district's vapor recovery rules as outlined by the U.S. Environmental Protection Agency (U.S. EPA) in the attached memoranda (Attachment 1). U.S. EPA is encouraging states to eliminate the requirement for Phase II vapor recovery systems on gasoline refueling dispensers for certain motor vehicle fleets in light of the growing use of Onboard Refueling Vapor Recovery (ORVR) systems in those fleets.

The fleets at issue are new vehicles initially fueled at motor vehicle assembly plants, late model rental cars refueled at rental car facilities, corporate fleets refueled at corporate-owned pumps, and flexible fuel vehicles (FFVs) refueled at E85 fuel dispensers.

Section 202(a)(6) of the federal Clean Air Act (Act) allows U.S. EPA to remove the requirement for vehicle refueling gasoline vapor recovery systems in ozone nonattainment areas after determining that ORVR systems for motor vehicles are in widespread use. For new vehicles initially fueled at motor vehicle assembly plants, late model rental cars refueled at rental car facilities, and corporate fleets refueled at corporate-owned pumps, U.S. EPA has defined widespread use as 95 percent of the vehicles equipped with ORVR. By virtue of being made up of new late-model vehicles, these fleets have met this criterion.

For FFVs, U.S. EPA is recommending that states show that any increase in emissions caused by operating E85 refueling dispensers without vapor recovery systems is so small as not to interfere with ozone attainment. ARB staff has estimated the emissions to be less than 0.10 tons per day of reactive organic gases statewide in 2015 (see Attachment 2) and believes that it is reasonable to conclude that there is no impact on ozone attainment.

The process for revising a district's vapor recovery requirements is the same as for any other district rule State Implementation Plan (SIP) submission: adopt the amended rules at a public hearing and transmit the amended rules to ARB for processing as a SIP revision and submittal to U.S. EPA. ARB staff is available to assist you with rule review

or in doing additional analysis before proceeding, including more specific emissions assessment and attainment impacts, impact on progress toward state standards, and any possible toxic air contaminant issues.

If you have any questions or need further information regarding vapor recovery requirements, please contact Cindy Castronovo of the Monitoring and Laboratory Division at (916) 322-8957. For questions regarding the emissions impact analysis, please contact Dean Simeroth, Chief of the Criteria Pollutants Branch, at (916) 322-6020.

Sincerely,

James N. Goldstene
Executive Officer

Attachments

cc: Dean Simeroth, SSD
Kurt Karperos, PTSD
Cindy Castronovo, MLD

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
RESEARCH TRIANGLE PARK, NC 27711

NOV 28 2007

OFFICE OF
AIR QUALITY PLANNING
AND STANDARDS

MEMORANDUM

SUBJECT: Removal of Stage II Vapor Recovery from Refueling of Corporate Fleets

FROM: Stephen D. Page, Director
Office of Air Quality Planning and Standards

Margo Tsirigotis Oge, Director
Office of Transportation and Air Quality

TO: Regional Air Division Directors

The purpose of this memorandum is to provide guidance to States concerning the removal of Stage II gasoline vapor recovery systems at gasoline refueling facilities exclusively dedicated to refueling "corporate" or "commercial" fleets, where States demonstrate to the Environmental Protection Agency (EPA) that widespread use of onboard refueling vapor recovery (ORVR) has occurred in such fleets. Corporate or commercial fleets include vehicles owned by corporations, governments, universities or other organizations which use the vehicles for business purposes and typically fuel the vehicles at fueling pumps owned and operated by the fleet owner and exclusively dedicated to fueling the fleet.

On December 12, 2006, EPA issued a memorandum, "Removal of Stage II Vapor Recovery in Situations Where Widespread Use of Onboard Refueling Vapor Recovery is Demonstrated," (attached) which discussed how States may explore amendments to their State Implementation Plans (SIPs) to allow Stage II gasoline vapor recovery to be removed from specific fleet situations, namely:

1. initial fueling of new vehicles at automobile assembly plants;
2. refueling of rental cars at rental car facilities; and
3. refueling of flexible fuel vehicles at E85 dispensing pumps.

The December 12, 2006, memo states that widespread use of ORVR will likely have been demonstrated if 95 percent of the vehicles in a fleet have ORVR. In today's memorandum, EPA is indicating that it believes that if a State demonstrates that 95 percent of the vehicles in a corporate or commercial vehicle fleet are equipped with ORVR and that

this level of ORVR use would not decrease, then widespread use of ORVR could be found for the corporate or commercial motor vehicle fleet, such that Stage II controls could be considered for removal from a refueling facility that is exclusively dedicated to refueling that fleet.

States desiring to remove the Stage II requirement for these facilities would need to submit a SIP revision that EPA would evaluate through notice and comment rulemaking. The SIP would need to demonstrate that the widespread use benchmark has been achieved and provide assurance that any facility wishing to remove Stage II equipment maintains its eligibility for its motor vehicle fleet. Any EPA SIP approval would also be subject to the Clean Air Act (CAA) section 110(l) requirement that the revision not interfere with any applicable requirement concerning attainment and reasonable further progress, or any other requirement of the CAA. In addition, State and local agencies should consider if there are any transportation conformity impacts related to removing Stage II, if emissions reductions from Stage II are included in a SIP's on-road motor vehicle emissions budget(s).

As mentioned in the December 12, 2006 memorandum, this guidance for widespread use determinations for corporate fleets would not necessarily apply to widespread use determinations for the general motor vehicle fleet. Within the overall motor vehicle fleet, the rate of penetration of ORVR-equipped vehicles has not advanced at the same rapid rates as in some corporate and rental fleets. EPA is still considering the possible criteria for determining widespread use for the general fleet.

In addition, the December 12, 2006, memorandum explained that widespread use determinations would not affect separate requirements applicable to States in the ozone transport region. This exclusion would also apply in the case of corporate or commercial fleets with widespread use of ORVR.

If you have questions about this recommendation, you may contact William L. Johnson in EPA's Office of Air Quality Planning and Standards by telephone at (919) 541-5245 or by e-mail at johnson.williamL@epa.gov.

Attachment

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
RESEARCH TRIANGLE PARK, NC 27711

DEC 12 2006

MEMORANDUM

OFFICE OF
AIR QUALITY PLANNING
AND STANDARDS

SUBJECT: Removal of Stage II Vapor Recovery in Situations Where Widespread Use of Onboard Refueling Vapor Recovery is Demonstrated

FROM: Stephen D. Page, Director
Office of Air Quality Planning and Standards

Margo Tsirigotis Oge, Director
Office of Transportation and Air Quality

TO: Regional Air Division Directors

The purpose of this memorandum is to provide guidance to States concerning the removal of Stage II gasoline vapor recovery systems where States demonstrate to EPA that widespread use of onboard refueling vapor recovery (ORVR) has occurred in specific portions of the motor vehicle fleet. The specific fleets addressed here include:

1. initial fueling of new vehicles at automobile assembly plants
2. refueling of rental cars at rental car facilities
3. refueling of flexible fuel vehicles at E85 dispensing pumps

Background

Stage II vapor recovery systems are required to be used at gasoline dispensing facilities located in serious, severe, and extreme non-attainment areas for ozone under section 182(b)(3) of the Clean Air Act (CAA). States have included these control measures in their federally-approved state implementation plans (SIPs) in the form of generally applicable regulatory requirements governing all gasoline dispensing facilities that exceed the relevant gasoline dispensing throughput criteria. However, section 202(a)(6) of the CAA allows EPA to revise or waive the section 182(b)(3) Stage II requirement for these ozone non-attainment areas after the Agency determines that ORVR is in widespread use throughout the motor vehicle fleet.

CAA section 202(a)(6) does not specify which motor vehicle fleet must be the subject of a widespread use determination before EPA may revise or waive the section 182(b)(3) Stage II requirement. Nor does the CAA identify what level of ORVR use in the motor vehicle fleet must be reached before it is "widespread." EPA expects the possibility of

different rates of the implementation of ORVR across different geographic regions and among different types of motor vehicle fleets within any region. Given this, EPA does not believe that CAA section 202(a)(6) must be read narrowly to allow a widespread use determination and waiver of the Stage II requirement for a given area or area's fleet only if ORVR use has become widespread throughout the entire United States, or only if ORVR use has reached a definite level in each area. Rather, EPA believes that section 202(a)(6) allows the Agency to apply the widespread use criterion to either the entire motor vehicle fleet in a State or non-attainment area, or to special segments of the overall fleet for which ORVR use is shown to be sufficiently high, and to base widespread use determinations on differing levels of ORVR use, as appropriate. Moreover, a single national rulemaking is not needed to grant such a waiver for a specific area. Instead, EPA believes that the Act allows the Agency to use an area-specific rulemaking approving a SIP revision to issue the section 202(a)(6) waiver for a relevant fleet in a non-attainment area, where a State meets the recommended criteria discussed below.

Various metrics have been studied for demonstrating widespread use of ORVR in motor vehicle fleets. One metric focuses on the percentage of vehicles in service that are ORVR-equipped. Based on our preliminary analysis, this metric seems to track fairly closely with the percentage of vehicle miles traveled (VMT) from ORVR-equipped vehicles, and with the percentage of gasoline sold which is dispensed to ORVR-equipped vehicles. In fact, since newer vehicles tend to be driven more miles than older models, VMT traveled by ORVR-equipped vehicles and gasoline dispensed to ORVR-equipped vehicles may exceed 95 percent in a 95 percent ORVR-equipped fleet.

Another metric that EPA considered is when VOC emissions resulting from the application of ORVR controls alone equal the VOC emissions when both Stage II vapor recovery systems and ORVR controls are used, after accounting for incompatibility excess emissions. The incompatibility excess emissions factor relates to losses in control efficiency when certain types of Stage II and ORVR are used together. Studies conducted in three northeastern states indicate that when the percentages of motor vehicles in service with ORVR, vehicle miles traveled by ORVR-equipped vehicles, or gasoline dispensed to ORVR-equipped vehicles are above 95 percent, then the widespread use metric based on comparable VOC emissions will likely have been reached. For this reason, EPA believes that if 95 percent of the vehicles in a fleet have ORVR, then widespread use will likely have been demonstrated.

1. Initial Fueling at Automobile Assembly Plants

Based on our preliminary analysis, EPA expects that if a State's submission of a SIP revision shows that 95 percent of the new vehicles fueled at an automobile assembly plant are equipped with ORVR, and that this level of ORVR use would not decrease, the Agency can determine that widespread use of ORVR has been achieved for the fleet of motor vehicles that are fueled at that facility.

Since model year 2000, all passenger cars have been required to have ORVR. Also since 2006, all light duty trucks, SUVs and medium duty vehicles are required to be equipped

with ORVR. There may be a few situations, such as the chassis for motorized mobile homes, which still do not have ORVR. However, the number of these would be small. It is apparent that at most automobile assembly plants greater than 95 percent of the vehicles manufactured would have ORVR. Many assembly plants manufacture 100 percent ORVR equipped vehicles. Only such new vehicles are expected to be fueled at the automobile assembly plants.

States desiring to remove the Stage II requirement for these facilities would need to submit a SIP revision that EPA would evaluate through notice and comment rulemaking. The SIP would need to demonstrate that the widespread use benchmark has been achieved and provide assurance that any facility wishing to remove Stage II equipment maintains its eligibility for its motor vehicle fleet. Any EPA SIP approval would also be subject to the CAA section 110(l) requirement that the revision not interfere with any applicable requirement concerning attainment and reasonable further progress, or any other requirement of the CAA.

2. Refueling of Rental Cars at Rental Car Facilities

Similarly, EPA expects that if a SIP revision submission demonstrates that 95 percent of the vehicles in an automobile rental fleet refueling at a rental car facility are equipped with ORVR and that this level of ORVR use would not decrease, then widespread use of ORVR could be found for the motor vehicle fleet refueling at that facility. Most large rental car companies rent current model vehicles that would all have ORVR. There may be truck rental companies which have older vehicles which do not have ORVR and that would not be able to demonstrate widespread use of ORVR for their fleets. As discussed above, any SIP revision would be subject to CAA section 110(l) and other applicable requirements, and State and local agencies should consider any potential transportation conformity impacts if Stage II is currently included in a SIP's on-road motor vehicle emissions budget.

3. Refueling Flexible Fuel Vehicles at E85 Dispensing Pumps

E85 is a motor vehicle fuel that is a blend of as little as 15 percent gasoline and up to 85 percent ethanol. (In wintertime applications, the ratio may be 30 percent gasoline and 70 percent ethanol.) Ethanol is ethyl alcohol, a type of alcohol which can be produced from renewable resources such as corn. Based on the agency's survey of existing SIPs, EPA believes that most States have defined "gasoline" (for purposes of controlling emissions of VOC from refueling activities) to include gasoline/alcohol blends that have the same volatility as E85. EPA's guidance for States in developing their Stage II SIPs in the early 1990s suggested that States use the same definition of "gasoline" as the one found in EPA's Standards of Performance for Bulk Gasoline Terminals at 40 C.F.R. 60.501, which includes "any petroleum distillate or petroleum distillate/alcohol blend having a Reid vapor pressure of 27.6 kilopascals (kPa) or greater which is used as a fuel for internal combustion engines." EPA recommended using this definition to most broadly reach situations in which refueling of motor vehicles results in evaporative VOC emissions that contribute to ozone non-attainment concentrations, and to avoid a narrow interpretation of what is "gasoline" that

would allow significant VOC emissions from motor vehicle refueling activities in non-attainment areas to go uncontrolled.

E85 can only be used in specially designed flexible fuel vehicles (FFVs), which have mostly been manufactured since 1998. Since these are newer vehicles, most of them are equipped with ORVR, and every FFV built today has ORVR. Thus, most vehicles refueling at E85 dispensing pumps are already having their evaporative emissions captured, as in the cases of late model rental cars refueling at rental car facilities and newly manufactured cars being fueled for the first time at automobile assembly plants. EPA estimates that 59 percent of FFVs in current use are equipped with ORVR. The percentage of FFVs with ORVR will continue to climb as older vehicles are taken out of service and new models join the fleet. Across different ozone non-attainment areas and between States, these percentages may vary.

EPA believes that encouraging the use of E85 as a motor vehicle fuel reduces emissions of other air pollutants such as CO and benzene, a known human carcinogen, and reduces emissions of greenhouse gases. In addition, based on available information, the Agency is concerned that there is currently a lack of certified Stage II equipment for E85 (which may require different materials of construction than conventional Stage II equipment), and that the timing for when certified E85-compatible equipment will become widely available is uncertain. This may unnecessarily hinder E85 distribution in areas that now require Stage II.

Unlike in the cases of automobile assembly plants and rental car facilities, EPA is not recommending a specific percentage of the FFV fleet that should have ORVR before widespread use could be determined. This is because most E85 compatible vehicles are already equipped with ORVR and this percentage is increasing over time, whereas for automobile assembly plants and car rental facilities very high percentages of ORVR use have in most cases already been reached and are not expected to further increase significantly. The general use of ORVR in FFVs, instead, is expected to significantly increase, as are the miles driven by and amount of fuel dispensed to recent ORVR-equipped FFVs compared to those manufactured before 2000 without ORVR.

Moreover, we believe that in determining whether widespread use of ORVR has been demonstrated, it is reasonable under section 202(a)(6) to consider the VOC emissions impacts of removing Stage II, and that those impacts may inform the percentage of ORVR-equipped vehicles that would need to be achieved for a specific motor vehicle fleet or in a specific non-attainment area. EPA expects that the air quality impact of allowing E85 refueling facilities to operate without Stage II controls would likely be minimal in most non-attainment areas. FFVs currently comprise about 2 percent of the total US fleet. Non-ORVR FFVs are less 1 percent of the total U.S. vehicle fleet. EPA estimates that non-ORVR FFVs participate in only about 0.5 percent of all refueling events. Furthermore, because of the relatively small number of stations that offer E85 (around 1,000 out of 170,000 total refueling stations) EPA believes that very few of these non-ORVR refueling events actually occur at E85 pumps.

Considering the factors discussed above, if an area can demonstrate that any increase in emissions caused by operating E85 fueling facilities without Stage II controls is so small as to clearly not interfere with attainment of the ozone standard or reasonable further progress or any other applicable CAA requirement, then EPA expects it could find that ORVR is in widespread use for FFVs when refueling at E85 facilities in this area. These areas could then allow E85 facilities to operate without Stage II controls, after modifying their SIPs such that E85 is not included within the definition of "gasoline" for purposes of Stage II vapor recovery controls (or after taking other necessary SIP revision action). As discussed above, States would need to submit SIP revisions affecting this change to their current Stage II SIPs, which EPA would evaluate through notice and comment rulemaking, subject to the provisions of CAA section 110(l). In addition, State and local agencies should consider if there are any transportation conformity impacts related to removing Stage II, if emissions reductions from Stage II are included in a SIP's on-road motor vehicle emissions budget. Due to the expected rapid growth of E85 installations, EPA will explore the development of ways to expedite the SIP revision process for States which are dealing with the E85 issue.

General Exclusions from Widespread Use Determinations

States in the ozone transport region (OTR) are still required to apply Stage II, or a comparable measure, in all areas under 184(b)(2) of the CAA. This requirement is not affected by any widespread use determination or waiver of the section 182(b)(3) requirement granted under section 202(a)(6). For the independent section 184(b)(2) "comparable measure" requirement to not prevent an appropriate removal of Stage II controls, OTR States may want to revisit their previously approved comparable measure SIPs to consider substituting available non-Stage II measures for the Stage II controls they currently require.

Also, some States have chosen to add Stage II vapor recovery system requirements in their SIPs for ozone nonattainment areas that are classified in a category lower than "serious." While it is not necessary for States to demonstrate ORVR is in widespread use in moderate or cleaner ozone non-attainment areas, a revision of previously adopted SIP requirements to specifically waive Stage II requirements in such areas would need to comply with the provisions of CAA section 110(l) and, as described above, consider any transportation conformity impacts as applicable.

This guidance for widespread use determinations for special sectors would not necessarily apply to widespread use determinations for the general motor vehicle fleet. Within the overall motor vehicle fleet, the rate of penetration of ORVR-equipped vehicles has not advanced at the same rapid rates as for the fleets discussed in this memorandum. EPA is still considering the possible criteria for determining widespread use for the general fleet.

Attachment 2

Estimated ROG Emission Increases From Removal of Stage 2 Vapor Recovery from E85 Fuel Dispensers

Year	Non-ORVR flex fuel vehicle population[1] (1,000's)	Annual VMT per vehicle[2], (1,000's)	% VMT fueled with E85[3]	E85 fuel economy[4] (miles per gallon)	Annual E85 used per vehicle[5], (gallons)	Total E85 used daily[6], 1,000's (gallons)	ROG emissions[7], statewide (tons per day)
2005	110	13.5	0	14.8	0	0	0
2010	95	11.4	5	14.8	38.5	10.0	0.035
2015	67	10.3	15	14.8	104	19.1	0.073
2020	34	9.3	25	14.8	157	14.6	0.055

Notes:

1. Based on data provided to ARB by automobile manufacturers of flex fuel vehicles (FFVs) sold in California 1997 – 2005, for which nearly all FFVs were light-duty trucks. Annual number of FFVs is estimated using survival fraction of vehicles as a function of vehicle age. Assumes all FFV light-duty trucks equipped with onboard refueling vapor recovery (ORVR) starting with MY2003. Average age of vehicles in 2005 non-ORVR FFV fleet is 4 years.

2. Annual vehicle miles traveled (VMT) data for light-duty trucks based on EMFAC2007.

3. Assumes increase in E85 refueling over time as number of E85 pumps increase and motorists become aware that E85 costs less than reformulated gasoline. The assumed percentages in each of the three years are estimates based on these factors.

4. Assumes:

   - Fuel economy of FFVs operating on E85 based on U.S. EPA Fuel Economy Guides;
   - Fuel economy does not decline with vehicle age for newer model year vehicles equipped with advanced on-board diagnostics.

5. Calculated: annual VMT X % fueled with E85 / fuel economy in miles per gallon.

6. Calculated: vehicle population X annual gallons E85 / 365 days per year.

7. Calculated: daily gallons of fuel used X evaporative emissions in pounds TOG per gallon of fuel throughput X 0.92 (ratio of ROG/TOG).

Assumes:

- E85 evaporative emissions factor same as emissions factor for reformulated gasoline. (Source: Full Fuel Cycle Assessment Well to Tank Energy Inputs, Emissions, and Water Impacts, CEC-600-2007-002-D, February 2007, pp. 5-30 to 5-35);

- Reformulated gasoline evaporative emissions factor 7.6 pounds TOG per 1,000 gallons of fuel throughput (Source: "Uncontrolled Vapor Emission Factor at Gasoline Dispensing Stations," January 5, 2000.)

State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER G-70-212

Modification of the Operative and Effective Dates Relating to the Finding that EVR Phase II Vapor Recovery Systems, Including In-Station Diagnostics, Are Not Certified for Use on Dispensing Facilities that Refuel Vehicles with a Fuel Blend of 85 Percent Ethanol and 15 Percent Gasoline (E85)

WHEREAS, the California Air Resources Board (ARB) has established, pursuant to California Health and Safety Code sections 25290.1.2, 39600, 39601 and 41954, certification procedures for systems designed for the control of gasoline vapor emissions during motor vehicle fueling operations (Phase II EVR vapor recovery systems) in its CP-201, ***Certification Procedure for Vapor Recovery Systems at Gasoline Dispensing Facilities*** (Certification Procedure) as last amended May 25, 2006, incorporated by reference in title 17, California Code of Regulations, section 94011;

WHEREAS, ARB has determined, after consulting with industry and local air quality management and air pollution control districts (districts), that the number of E85 (85 percent ethanol and 15 percent gasoline) dispensing facilities will increase throughout California;

WHEREAS, ARB has determined, E85 fuel is considered gasoline as the term is defined in D-200 ***Definitions for Vapor Recovery Procedures*** as last amended on May 25, 2006, incorporated by reference in title 17, California Code of Regulations, section 94010;

WHEREAS, District vapor recovery rules and regulations may require the use of Phase II vapor recovery systems at gasoline dispensing facilities, including those dispensing E85;

WHEREAS, section 2.4.4 of CP-201 allows the Executive Officer to change the operative and effective dates of new performance standards and specifications when certified systems meeting the applicable standards and specifications are not certified by the operative dates specified in Table 2-1 of CP-201;

WHEREAS, a vapor recovery system that meets the Phase II standards and specifications, including In-Station Diagnostics, was not certified for use on E85 dispensing facilities by the operative date in Table 2-1 of CP-201; and

WHEREAS, ARB and the U.S. Environmental Protection Agency have issued guidance letters authorizing districts to amend their rules to exempt E85 dispensing facilities from Phase II vapor recovery requirements because such

facilities are expected to refuel vehicle fleets where 95 percent of the vehicles are equipped with on-board refueling vapor recovery (ORVR), a vehicle based system.

NOW, THEREFORE, IT IS HEREBY ORDERED that E85 dispensing facilities may continue to operate without Phase II vapor recovery until such time as ARB may certify Phase II vapor recovery systems for use with E85.

Executed at Sacramento, California, this 16th day of July 2008.

James N. Goldstene
Executive Officer

APPENDIX D

Public Comments

Public Workshop Comments (January 13, 2009)

Participants:	Karen Carney	Mike Krempely
	George Contos	June Livingston
	Kaled Cuaresma	Rick Mandella
	Mike Davirro	Ian Moorhead
	Tam Dinh	Jeff Rivard
	Larry Gregory	Dirk Ruinard
	George Julian	Wayne Todd

Comment #1: What does the EVR upgrade consist of?

Response: EVR upgrade refers to the replacement of an older Phase II vapor recovery system with a new system that has been certified to CARB's most recent standards. State regulations require these new EVR systems to be in place by April 1, 2009 for facilities with underground storage tanks. Facilities with aboveground storage tanks will need to perform EVR upgrades by July of 2012. District permits are required before installing or modifying the vapor recovery systems.

Comment #2: For public agencies with key control fleets, do we need to submit any documentation or paperwork to get the ORVR exemption?

Response: Yes. As stated in Rule 449 section 308, non-retail dispensing facilities claiming this exemption shall submit an application pursuant to Rule 201 – GENERAL PERMIT REQUIREMENTS for an Authority to Construct and Permit to Operate the facility, agreeing to comply with the conditions for exemption and the recordkeeping requirements.

Comment #3: For facilities going for the ORVR exemption, can we keep the current Phase II nozzle?

Response: Rule 449 Section 308 requires the nozzles to be part of a CARB certified vapor recovery system, except that the vapor return line shall be sealed off. If your current nozzles are no longer CARB certified, they will have to be replaced.

Comment #4: For the ORVR exemption, do we need to submit an application prior to April 1?

Response: Yes. Please see the response to Comment #2 above. Otherwise, the facility must have an EVR Phase II system in place by April 1, 2009.

Comment #5: Where do we get the applications?

Response: Applications can be picked up at the District, mailed out upon request, or downloaded from the District website: http://www.airquality.org/permits/forms/appforms.shtml

Comment #6: How do we document the inspection after each fuel drop?

Response: Inspection log formatting is at the discretion of the source. Staff is open to working with affected sources to develop checklists where needed.

Comment #7: What is the reason for the inspection after each fuel drop if we conduct daily inspections?

Response: Daily inspections are required as part of Phase II systems maintenance. Staff believes the Phase I systems are most susceptible to damage when receiving deliveries. However, Staff has changed the language in Section 306.1 of Rule 448 such that only one inspection is required for each day that fuel is delivered. If you already perform daily inspections, you are complying with the proposed requirement (assuming the required elements are included in your inspections).

Comment #8: When is the effective date of the rule amendments?

Response: Staff has scheduled the proposed rules to be considered for adoption by the Board of Directors at a public hearing on February 26, 2009. Unless, otherwise specified, the rule amendments will take effect immediately upon rule adoption. The exceptions are section 401 of Rule 448 and Section 402 of Rule 449, which contain specific timelines for ICC certification requirements, and section 403.3 of Rule 448, which specifies when annual testing requirements begin.

Comment #9: When do we know that the proposed amendments to the rules have been adopted?

Response: The public is welcome to attend the February adoption hearing to witness firsthand. If adopted, the District website will be updated to reflect the Board's decision.

Comment #10: The proposed amendment does not specify that an application is required. Is an application required?

Response: Please see the response to Comment #2 above.

Comment #11: What happens if the rule passes but the permits have not been modified yet?

Response: Assuming that the District Board adopts the ORVR exemption as proposed, the District will not take enforcement action if the application for ORVR exemption is submitted before April 1, 2009 and a permit is subsequently granted.

Comment #12: What if you already have a Phase II system and you want to use an exemption?

Response: If you are an E85 facility, you can keep your Phase II system in place or remove it. If you are ORVR exempt, you will need to apply for a permit modification and use CARB certified nozzles with the vapor return line sealed off.

Written Comments

Andrew Steckel, United States Environmental Protection Agency (December 23, 2008)

Comment #1: We have completed a preliminary review of the draft rules and have identified no significant concerns.

Alex Krichevsky, California Air Resources Board (December 29, 2008)

Comment #1: Rule 448 - We have no comments on this rule.

Comment #2: Rule 449 – Section 301.1: Table 4-1 in ARB Vapor Recovery Certification Procedure CP-201 requires 95% by weight control efficiency and an emission factor < 0.38 lb/1000 gal for summer fuel. Therefore, we recommend to change this section to read as follows:

For summer fuel, a gasoline vapor control efficiency of at least 95% by weight ~~or~~ and a mass emission factor not exceeding 0.38 pounds of gasoline vapors per 1,000 gallons of gasoline dispensed.

Response: Staff agrees and has revised the rule accordingly.

Comment #3: Rule 449 – Section 301.2: Table 4-1 in ARB Vapor Recovery Certification Procedure CP-201 requires 95% by weight control efficiency or an emission factor < 0.38 lb/1000 gal for winter fuel. Therefore, we recommend to change this section to read as follows:

For winter fuel, a gasoline vapor control efficiency of at least 95% by weight ~~and~~ or a mass emission factor not exceeding 0.38 pounds of gasoline vapors per 1,000 gallons of gasoline dispensed.

Response: Staff agrees and has revised the rule accordingly.

Karen Carney, County of Sacramento (January 15, 2009)

Comment #1: Rule 448 Section 306.1, regarding maintenance inspections, how will the owner/operator be able to verify: If the spill containment drain valve is vapor tight? If the poppet valve is damaged? Should we actually compress it to see? If the submerged fill pipe is missing or damaged?

Response: The maintenance inspections proposed for Rule 448, Section 306.1, are intended to be primarily visual inspections that do not require the use of testing equipment. Staff has changed the proposed requirement for drain

valves from “vapor tight” to “seating properly” so that the use of testing equipment is not required.

Spill containers that contain debris should have the debris removed if gasoline is present in the spill container, the drain valve should be opened to let the gasoline drain into the tank. When not in use, the drain valve should be closed. Inspect for any visual damage or the presence of vapor leaks when the drain valve is closed.

Poppet valves should be inspected visually for obvious mechanical damage and to ensure that the valve is not stuck in an open position, that it is seated properly, and there is no sign of vapor leaks.

The presence or absence of the submerged fill pipe can be seen through a visual inspection of the liquid adapter. The fill tube should be round and free from deformities.

The District’s compliance assistance staff is available to help educate facilities on specific procedures.