

**SACRAMENTO METROPOLITAN  
AIR QUALITY MANAGEMENT DISTRICT**

For Agenda of **February 26, 2009**

**To:** Board of Directors  
Sacramento Metropolitan Air Quality Management District

**From:** Larry Greene  
Executive Director/Air Pollution Control Officer

**Subject:** Adopt Resolutions Approving Amendments to:  
1. Rule 448, Gasoline Transfer into Stationary Storage Containers  
2. Rule 449, Transfer of Gasoline into Vehicle Fuel Tanks

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**Recommendations**

1. Determine that the amendments to Rule 448 and Rule 449 are exempt from the California Environmental Quality Act (CEQA); and
  2. Adopt the attached resolutions approving the amendments to Rule 448 and Rule 449.
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**Executive Summary**

Staff is proposing to amend Rule 448, Gasoline Transfer into Stationary Storage Containers and Rule 449, Transfer of Gasoline into Vehicle Fuel Tanks. Rule 448 regulates transfers of gasoline from delivery vessels into stationary storage tanks or mobile fuelers (Phase I). Rule 449 regulates transfers of gasoline from stationary storage tanks or mobile fuelers into vehicle fuel tanks (Phase II). The rules require gasoline dispensing facilities to use vapor recovery systems to reduce the VOC emissions. Gasoline dispensing is the third highest VOC emissions category even after considering the effect of controls (behind solvents and architectural coatings).

The primary purpose of the rule amendments is to:

- establish new exemptions for the dispensing of Ethanol 85 (E85) and dispensing at some facilities refueling Onboard Refueling Vapor Recovery (ORVR) equipped vehicles;
- require a vapor recovery system or work practices for removal of gasoline from specified tanks;
- require annual reverification/performance testing (new for Phase I aboveground tanks and reduced from semiannual for high throughput Phase II facilities);
- require maintenance inspections for Phase I systems;
- require recordkeeping of inspections, testing, and repairs;
- require vapor recovery installers/contractors and testers to be certified by the International Code Council (ICC);

- modify the mobile fueler exemption from tanks less than or equal to 250 gallons to tanks less than or equal to 120 gallons; and
- improve maintenance of vapor recovery systems and strengthen the enforceability of existing provisions.

The proposed requirements are based on feasible measures that have been adopted and implemented in other California districts.

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## Attachments

The following table identifies the attachments to this memo.

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## Background

The District is currently classified as a “serious” nonattainment area for the federal 8-hour ozone standard. 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 of 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;
- Increase hospitalizations and emergency room visits; and
- Premature deaths.

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).

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## Reasons for Rule Changes

Rule changes are proposed to maintain consistency with state vapor recovery standards. CARB's regulations for Enhanced Vapor Recovery (EVR) were established in 2001. By April 1, 2009, all Phase II vapor recovery systems at gasoline dispensing facilities with underground storage tanks must meet the new standards.

Section 202(a)(6) of the federal Clean Air Act allows U.S. EPA to remove the requirement for Phase II vapor recovery systems in ozone nonattainment areas after determining that Onboard Refueling Vapor Recovery (ORVR) systems for motor vehicles are in widespread use. U.S. EPA issued guidance for removing the Phase II requirement for (i) dispensing Ethanol 85 (E85), (ii) for automobile assembly plants if 95% or more of the fleet has ORVR, or (iii) for rental car refueling if 95% or more of the fleet has ORVR.

CARB Executive Officer James Goldstene sent a letter encouraging all California districts to revise their vapor recovery rules to incorporate exemptions for ORVR fleets and E85 dispensing. The District currently has approximately 515 gasoline dispensing facilities that will be required to perform EVR upgrades of their Phase II vapor recovery systems. Of these, 402 are facilities with underground storage tanks that are required by state law to be upgraded by April 1, 2009. There are approximately 20 existing or proposed E85 facilities and 8 rental car refueling facilities that meet the ORVR criteria and could be exempted from the Phase II requirement. Certain automotive dealerships, commercial fleets or government fleets may also be able to meet the ORVR criteria.

Many other changes are proposed to ensure that the District is meeting requirements in state law including "all feasible measures"<sup>1</sup> and other provisions of state laws and regulations<sup>2</sup>.

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## Summary of Proposed Rule Amendments

The major proposed rule changes are summarized below. The changes as proposed will take effect immediately upon adoption unless otherwise noted. Please refer to Appendix A of the Staff Report (Attachment C) for a more detailed description of changes.

### **Rule 448:**

- Lower the applicability to include transfer of gasoline into a mobile fueler with a capacity of 120 gallons or more (from 250 gallons), and require vapor recovery when transferring diesel fuel into a container that previously contained gasoline.

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<sup>1</sup> Health and Safety Code Section 40914(b)(2).

<sup>2</sup> Health and Safety Code Sections 41854(f), 41960.2, 41962(h), Title 13 CCR Section 2292.4, and CARB Certification Procedure CP-204.

- Require vapor recovery when transferring gasoline out of a stationary tank or mobile fueler into another stationary tank or delivery vessel.
- Implement work practices to reduce spillage when gasoline is removed from vehicle fuel tanks.
- Require the owner/operator of the dispensing facility to inspect the Phase I system after receiving a fuel delivery.
- Require installers/contractors and testers of vapor recovery systems to be certified by the International Code Council (ICC) for Vapor Recovery System Installation, Repair and Testing (effective 3 months after date of adoption).
- Require that reverification tests be performed annually for Phase I vapor recovery systems. This is a new requirement for facilities with aboveground tanks. The first annual test must be performed within one year after date of adoption.
- Require recordkeeping for performance and reverification tests results and maintenance inspection and repair records.

**Rule 449:**

- Add a new exemption for dispensing E85. No EVR system will be required.
- Add a new exemption for non-retail dispensing facilities that refuel only ORVR-equipped vehicles. No EVR system will be required.
- Lower the applicability to include transfer of gasoline from a mobile fueler with a capacity of 120 gallons or more (from 250 gallons).
- Revise the frequency required for performing reverification test to be annual for all facilities. Reduced from semi-annual for facilities with a monthly throughput greater than or equal to 100,000 gallons.
- Require installers/contractors and testers of vapor recovery systems to be certified by the International Code Council (ICC) for Vapor Recovery System Installation, Repair and Testing (effective 3 months after date of adoption).

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**Impact on Businesses and Public**

EVR upgrades of Phase II vapor recovery systems are already required by CARB regulations. The rule amendments apply to all gasoline dispensing facilities that are required to have vapor recovery systems and also apply to installation, maintenance and testing contractors. There are approximately 546 permitted retail and non-retail facilities in the District. The costs and savings are discussed in the following paragraphs.

**Installers/contractors and testers:** The cost of ICC certification is \$75 every two years.

**Facilities with aboveground storage tanks, only Phase I systems:** These facilities are not currently required to perform testing, and will incur costs of approximately \$1,870/yr for annual testing, \$87/yr for Phase I inspections, and \$260/yr for recordkeeping.

**Facilities not Phase II exempt, monthly throughput  $\leq$  100,000 gal:** These facilities will incur an additional cost of \$87/yr to perform Phase I inspections.

**Facilities not Phase II exempt, monthly throughput > 100,000 gal:** These facilities will incur an additional cost of \$87/yr to perform Phase I inspections, but will experience savings of \$2,370 - \$5,770/yr by reducing the frequency of testing from twice per year to once per year.

**Facilities using E85 exemption:** These facilities will incur an additional cost of \$87/yr to perform Phase I inspections, but will experience savings of \$17,000 - \$85,000 by avoiding EVR upgrades, and savings of \$2,370 - \$5,770/yr by avoiding Phase II testing.

**Facilities using ORVR exemption:** These facilities will incur additional costs of \$87/yr to perform Phase I inspections, \$1,600 - \$9,600 to upgrade nozzles, and \$634 to modify the permit to operate. However, these facilities will also experience savings of \$17,000 - \$85,000 by avoiding EVR upgrades, and savings of \$2,370 - \$5,770/yr by avoiding Phase II testing.

The vast majority of facilities will not be exempt from Phase II requirements. Therefore, the most common situations will be an additional cost of \$87/yr for facilities with monthly throughputs below 100,000 gallons or a net cost savings of \$2,283 - \$5,683/yr for facilities with monthly throughputs greater than 100,000 gallons.

The amendments to the rules are not expected to have any impact on employment or economy in the District.

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### **District Impacts**

The proposed amendments to the rules are not expected to result in additional costs to the District. Sources affected by the rule amendments are already subject to requirements under the existing rules.

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### **Emission Impacts**

Although there are no additional emission reductions claimed, the proposed amendments to Rules 448 and 449 will improve maintenance and enforceability of existing provisions. An analysis by NESCAUM shows that ORVR alone is at least as effective as Phase II vapor recovery. No excess emissions are expected from the proposed exemptions in Rule 449 for dispensing into 100% ORVR vehicles and E85 dispensing.

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### **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.

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### **Public Outreach and Comments**

Staff conducted a public workshop on January 13, 2009. The noticing for this workshop included:

- Notices mailed to owners of all permitted gasoline dispensing facilities, and to installation/repair contractors and testers; and
- A display ad in the Sacramento Bee; and
- Notices mailed to those who have requested rulemaking notices.

A notice of public hearing was published in the Sacramento Bee on January 26, 2009. The notice was also mailed to attendees of the public workshop and to the mailing list that was developed for the public workshop.

The Business Environmental Resource Center (BERC) also conducted outreach on EVR Phase II requirements and permit procedures, and obtaining financing for EVR. BERC conducted these workshops for the County and City of Sacramento, the City of Citrus Heights, the City of Folsom, the City of Elk Grove, and the City of Rancho Cordova. As part of these workshops BERC informed facilities of the pending rule changes.

Staff received several questions regarding application requirements for ORVR exemptions at the workshop as well as written comments from affected parties, CARB and U.S. EPA. The comments requested Staff to address specific circumstances and revise grammatical errors. These comments, together with the Staff responses, are presented in Appendix D of the Staff Report.

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## **Conclusion**

The proposed amendments are necessary to maintain consistency with CARB regulations, including Enhanced Vapor Recovery, and to incorporate “all feasible measures.” Furthermore, the proposed amendments 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. The amendments will result in relatively small costs to some affected businesses for additional inspections, tests and recordkeeping requirements while other businesses may experience a significant cost savings from reduced testing frequency or avoiding EVR system requirements. The proposed rules will not increase emissions or the costs to the District while overall they will improve maintenance and strengthen enforceability of existing requirements. Staff recommends that the Board determine that Rules 448 and 449 are exempt from CEQA and approve the attached resolutions adopting Rule 448 and Rule 449 as proposed.

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Respectfully submitted,

Approved as to form:

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Larry Greene  
Executive Director/Air Pollution Control Officer

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Kathrine Pittard  
District Counsel

Attachments