

MONTEREY BAY UNIFIED AIR POLLUTION CONTROL DISTRICT

**RULE 1002 - TRANSFER OF GASOLINE INTO VEHICLE FUEL TANKS**

*(Adopted February 22, 1989; Revised November 23, 1994, April 21, 1999, and April 16, 2003.)*

CONTENTS

PART 1 GENERAL.....	2
1.1 Purpose.....	2
1.2 Applicability.....	2
1.3 Exemptions .....	2
1.4 Effective Dates .....	3
1.5 Related Rules and References.....	3
PART 2 DEFINITIONS.....	3
2.1 ARB-Certified Vapor Recovery System.....	3
2.2 Drive-off.....	3
2.3 Existing Gasoline Dispensing Facility .....	3
2.4 Gasoline .....	4
2.5 Gasoline Dispensing Facility .....	4
2.6 Leak Free.....	4
2.7 Major Defect.....	4
2.8 Modified Gasoline Dispensing Facility.....	4
2.9 New Gasoline Dispensing Facility.....	5
2.10 Phase I Vapor Recovery System.....	5
2.11 Phase II Vapor Recovery System .....	5
2.12 Throughput.....	5
2.13 Vapor-tight .....	5
PART 3 REQUIREMENTS AND STANDARDS .....	5
3.1 Transfer Requirements .....	5
3.2 Equipment Requirements .....	6
3.3 Inspection and Maintenance Requirements .....	6
3.4 Prohibition of Use .....	7
3.5 Seven-Day Notice to Correct .....	7
3.6 Posting of Operating Instructions .....	7
3.7 Drive-offs .....	8
PART 4 ADMINISTRATIVE REQUIREMENTS .....	8
4.1 New Gasoline Dispensing Facilities .....	8
4.2 Modified Gasoline Dispensing Facilities .....	8
4.3 Existing Gasoline Dispensing Facilities.....	9
4.4 Previously Exempt Gasoline Dispensing Facilities.....	9
4.5 Record Keeping.....	10
4.6 Testing Requirements .....	10
4.7 Test Methods.....	12

## PART 1 GENERAL

### 1.1 Purpose

This Rule complies with California Health and Safety Code section 39666(d) by establishing control requirements for the reduction of benzene emissions from gasoline dispensing facilities.

### 1.2 Applicability

The provisions of this Rule shall apply to any new, or modified, or existing gasoline dispensing facility.

### 1.3 Exemptions

The following facilities are exempt from the requirements of this Rule:

- 1.3.1 Facilities which are exempt from the Phase I vapor recovery requirements of Rule 418.
- 1.3.2 Facilities which exclusively refuel motor vehicle tanks with a capacity of 5 gallons or less.
- 1.3.3 Facilities which exclusively refuel vehicles which are not motor vehicles as defined by the California Vehicle Code.

### 1.4 Effective Dates

This Rule, as most recently revised, is effective April 16, 2003. Additional effective dates for specific requirements are provided in Parts 3 and 4.

### 1.5 Related Rules and References

The requirements of this Rule arise from the provisions of:

- 1.5.1 Title 17 of the California Code of Regulations, section 94000 *et seq.*;
- 1.5.2 California Health and Safety Code section 39666; and
- 1.5.3 California Health and Safety Code section 41954.

Related or referenced District rules include:

- 1.5.4 Rule 418 (Transfer of Gasoline into Stationary Storage Containers).

## PART 2 DEFINITIONS

### 2.1 ARB-Certified Vapor Recovery System

A vapor recovery system which has been certified by the California Air Resources Board (ARB) pursuant to section 41954 of the California Health and Safety Code.

### 2.2 Drive-off

A separation of the hose from the dispenser or the nozzle from the hose which occurs when a vehicle drives away from the dispenser with the nozzle still in the fill pipe of the vehicle.

### 2.3 Existing Gasoline Dispensing Facility

Any gasoline dispensing facility operating or under construction as of February 22, 1989.

### 2.4 Gasoline

Any organic liquid (including petroleum distillate and methanol) having a Reid vapor pressure of four pounds per square inch or greater and used as a motor vehicle fuel or any fuel which is commonly or commercially known or sold as gasoline.

### 2.5 Gasoline Dispensing Facility

Any stationary facility which transfers gasoline from one or more stationary storage containers through one or more fill nozzles directly into the fuel tanks of motor vehicles.

### 2.6 Leak Free

A liquid leak of less than four drops per minute.

### 2.7 Major Defect

A defect in the vapor recovery system or its component(s) as set forth in the "Vapor Recovery Equipment Defects List" incorporated by reference in Section 94006, Title 17, California Code of Regulations.

## 2.8 Modified Gasoline Dispensing Facility

- 2.8.1 Any gasoline dispensing facility which is replacing or adding underground piping, or one or more stationary storage containers; or
- 2.8.2 any gasoline dispensing facility already equipped with a Phase II vapor recovery system which is disconnecting or replacing Phase I or Phase II vapor recovery system piping or components; or
- 2.8.3 any gasoline dispensing facility already equipped with a Phase II vapor recovery system which is installing additional Phase II vapor recovery system piping or components.

## 2.9 New Gasoline Dispensing Facility

Any gasoline dispensing facility which is not constructed or under construction as of February 22, 1989.

## 2.10 Phase I Vapor Recovery System

A gasoline vapor recovery system which recovers vapors during the transfer of gasoline from delivery vessels into stationary storage containers.

## 2.11 Phase II Vapor Recovery System

A gasoline vapor recovery system which recovers vapors during the fueling of motor vehicles from stationary storage containers.

## 2.12 Throughput

The annual volume of gasoline dispensed at a facility. The annual throughput at an existing gasoline dispensing facility shall be determined initially from actual operations within the three-year period immediately preceding February 22, 1989, and subsequently thereafter on the anniversary date of the Permit to Operate.

## 2.13 Vapor-tight

Equipment that allows no loss of vapors. A leak of less than 10,000 ppm total volatile organic compounds expressed as methane, or other appropriate value and calibration gas, when measured in accordance with EPA Method 21 (Determination of Volatile Organic Compound Leaks).

## PART 3 REQUIREMENTS AND STANDARDS

### 3.1 Transfer Requirements

A person shall not transfer or permit the transfer of gasoline from a stationary storage container into any motor vehicle fuel tank with a capacity of greater than 5 gallons unless such transfer is made through a fill nozzle which captures the gasoline vapors displaced by the transfer and directs them through the nozzle to an ARB-certified vapor recovery system (defined at Section 2.1, 2.2 above).

- 3.1.1 If the certification of an ARB-certified vapor recovery system, or a component thereof, is revoked or modified by the California Air Resources Board under provisions of California Health and Safety Code section 41954, an owner/ operator of a facility may continue to operate such a properly installed and operating system or component up to four years from the date of the California Air Resources Board's change to the certification, as long as such equipment is not modified or replaced.

### 3.2 Equipment Requirements

A person shall not transfer or permit the transfer, or install or sell equipment for the transfer, of gasoline from a stationary storage container subject to the provisions of Section 3.1 into any motor vehicle fuel tank of greater than 5 gallons unless:

- 3.2.1 The vapor recovery system is operating in accordance with the manufacturer's specifications and is maintained to be leak free, vapor tight, and in good working order; and
- 3.2.2 The equipment subject to this Rule is certified by the California Air Resources Board; and is operated, tested and maintained in accordance with Title 17 of the California Code of Regulations, sections 94000 *et seq.*, with the California Air Resources Board Executive Order certifying an applicable system, and any requirements imposed by this Rule.

### 3.3 Inspection and Maintenance Requirements

Any owner/operator of a gasoline dispensing facility with throughput equal to or greater than 100,000 gallons per year shall implement a maintenance inspection program and

document the program with an Inspection Checklist and Equipment Repair Log for the Phase II vapor recovery system. The inspection program shall be daily or at another frequency as approved by the District upon written request of the owner/operator.

3.3.1 The Inspection Checklist and Equipment Repair Log shall be kept at the facility for not less than two years and be made available to any person who operates, inspects, maintains, repairs, or tests the equipment at the facility, as well as to District staff upon request.

3.3.2 Maintenance inspections shall be conducted in accordance with the Inspection Checklist in addition to any Executive Order requirements to ensure proper operating conditions of all components of the Phase II vapor recovery system. Any equipment with a major defect which is identified during the inspection shall be removed from service, and when repaired, replaced or adjusted, entered into the Equipment Repair Log required by Section 4.5.2. The person conducting the maintenance inspection shall utilize the Inspection Checklist developed by the District or a District-approved equivalent form.

#### 3.4 Prohibition of Use

Whenever the District determines that a Phase II vapor recovery system, or any component thereof, contains a major defect, the District shall mark such system or component "Out of Order". No person shall use or permit the use of such marked component or system until it has been repaired, replaced or adjusted, as required to permit proper operation, and the District has reinspected it or has authorized its use pending reinspection.

#### 3.5 Seven-Day Notice to Correct

Whenever the District determines that a Phase II vapor recovery system, or any component thereof, is not in good working order but does not contain a major defect, the District shall provide the owner/operator with a "Seven-Day Notice to Correct" specifying the basis on which the component is not in good working order. Within seven days of such notice, the owner/operator must ensure that the system or component is in good working order.

#### 3.6 Posting of Operating Instructions

Any owner/operator of each gasoline dispensing facility requiring a Phase II vapor recovery system shall conspicuously post in the gasoline dispensing area operating instructions for the system and the District's or the California Air Resources Board's telephone number for complaints. The instructions shall clearly describe how to fuel vehicles correctly with the vapor recovery nozzles, and shall include a warning that topping off may result in spillage or recirculation of gasoline.

### 3.7 Drive-offs

In the event of the separation of a breakaway coupling due to a "drive-off", the owner/operator shall complete one of the following and document the activities pursuant to Section 3.3.

- 3.7.1 Replace the affected nozzles, coaxial hoses, breakaway couplings, and any other damaged components with new or certified rebuilt components that are ARB certified, before placing any affected equipment back in service; or
- 3.7.2 Conduct a visual inspection of the affected equipment and perform qualified repairs on any damaged components before placing any affected equipment back in service. In addition, the applicable reverification test pursuant to Subsection 4.7.1.1, or an alternative District approved method, shall be conducted and successfully passed prior to the affected equipment being placed back in service.

## PART 4 ADMINISTRATIVE REQUIREMENTS

### 4.1 New Gasoline Dispensing Facilities

Any owner/operator, or their contractor or agent, of any new gasoline dispensing facility subject to Section 3.1 shall secure all permits and other approvals necessary for installation of the equipment required by Section 3.1 prior to construction of the facility. Any owner/operator, or their contractor or agent, shall have all required equipment in place and operating in compliance with Part 3 at the time gasoline is first dispensed from the facility.

### 4.2 Modified Gasoline Dispensing Facilities

Any owner/operator, or their contractor or agent, of a modified gasoline dispensing facility (defined at Section 2.8 above) subject to Section 3.1 shall secure all permits and other approvals necessary for installation of the equipment required by Section 3.1 prior to modification to the facility. Any owner/operator, or their contractor or agent, of a modified gasoline dispensing facility subject to Section 3.1 shall have all required equipment in place and operating in compliance with Part 3 upon completion of the modification.

### 4.3 Existing Gasoline Dispensing Facilities

- 4.3.1 Any owner/operator, or their contractor or agent, of an existing gasoline dispensing facility subject to Section 3.1 with an annual gasoline throughput of 120,000 gallons or greater shall secure all permits and other approvals necessary for installation of the equipment required by Section 3.1 no later than February 22, 1990. Any

owner/operator, or their contractor or agent, shall have all required equipment in place and operating in compliance with Part 3 no later than February 22, 1991.

- 4.3.2 Any owner/operator, or their contractor or agent, of any existing gasoline dispensing facility subject to Section 3.1 with a previously determined annual gasoline throughput of exclusively less than 120,000 gallons, and with an annual gasoline throughput subsequently determined to be 120,000 gallons or greater, shall secure all permits and other approvals necessary for installation of the equipment required by Section 3.1 no later than 6 months from the first day the facility is determined to be subject to this subsection. Any owner/operator, or their contractor or agent, shall have all required equipment in place and operating in compliance with Part 3 no later than 12 months from the first day the facility is determined to be subject to this subsection.

#### 4.4 Previously Exempt Gasoline Dispensing Facilities

Any owner/operator, or their contractor or agent, of any previously exempt gasoline dispensing facility, where the operation has changed such that the exemption is no longer applicable, shall be subject to Section 3.1, and secure all permits and other approvals necessary for installation of the equipment required by Section 3.1 no later than 6 months from the first day the facility is determined to be no longer exempt from Section 3.1. Any owner/operator, or their contractor or agent shall have all required equipment in place and operating in compliance with the provisions of Part 3 no later than 12 months from the first day the facility is determined to be no longer exempt from Section 3.1 of this Rule.

#### 4.5 Record Keeping

- 4.5.1 Test reports of all tests specified in Section 4.6 shall be maintained for at least two years, and shall be made available to District staff upon request. These test results shall be dated and shall contain the names, addresses, and telephone numbers of the companies responsible for system installation and testing.
- 4.5.2 Any owner/operator shall maintain an Equipment Repair Log utilizing the form developed by the District or a District-approved equivalent form. This Equipment Repair Log shall be maintained for a minimum of two years and shall be made available to District staff upon request.

#### 4.6 Testing Requirements

- 4.6.1 Any owner/operator of a gasoline dispensing facility with throughput equal to or greater than 100,000 gallons per year shall comply with the Phase II vapor recovery system performance verification or reverification requirements specified in Sections 4.6.1.1 through 4.6.1.4.



- 4.6.1.1 Conduct a Static Pressure Performance Test of the Phase II vapor recovery system at least once every calendar year.
  - 4.6.1.2 For Balance Stations, conduct a Dynamic Back-Pressure Test of the Phase II vapor recovery system at least once every calendar year. The testing frequency may be reduced by petition at the time of annual permit renewal provided there is a history of testing compliance and a demonstration of an adequate maintenance program which is included in the on-site Inspection Checklist and Equipment Repair Log.
  - 4.6.1.3 For Phase II vapor recovery systems that incorporate a vacuum assist system, conduct an Air-to-Liquid Volume Ratio Test at least once per calendar quarter with a minimum of 45 days between each passed test. The testing frequency may be reduced by petition at the time of annual permit renewal provided there is history of testing compliance and a demonstration of an adequate maintenance program which is included in the on-site Inspection Checklist and Equipment Repair Log.
  - 4.6.1.4 For Phase II vapor recovery systems with a liquid removal device required by ARB Executive Orders, conduct a Liquid Removal Test once every calendar year.
  - 4.6.1.5 If required by ARB Executive Orders, conduct a Static Torque of Rotatable Phase I Adaptor once every calendar year.
  - 4.6.1.6 If required by ARB Executive Orders, conduct a Pressure Integrity of Drop Tube/Drain Valve Assembly once every calendar year.
  - 4.6.1.7 Any additional tests required by the ARB Executive Orders.
- 4.6.2 Any person who conducts testing at gasoline dispensing facilities shall comply with all of the following:
- 4.6.2.1 Conduct testing in accordance with the applicable test methods listed in Section 4.7.
  - 4.6.2.2 Conduct testing using calibrated equipment meeting the calibration range and calibration intervals specified by the ARB Executive Order.
  - 4.6.2.3 Accurately report results of tests in all reports and notices required by the District.
  - 4.6.2.4 Notify the District prior to testing. This notification shall be submitted by fax or other method approved by the District to the District's Compliance Division and must include:

- 4.6.2.4.1 Name, address and permit number of the facility;
  - 4.6.2.4.2 Test(s) to be performed;
  - 4.6.2.4.3 Name of contractor performing test(s); and
  - 4.6.2.4.4 Date and time of scheduled test(s).
- 4.6.2.5 Notify the District within 24 hours of any test(s) that the gasoline dispensing facility could not pass by the end of the day's testing. This notification shall be made by faxing a completed District Form "24 Hour Notification of Vapor Recovery Test Failure" to the District's Compliance Division.
- 4.6.2.6 Submit the written test report to the District within 10 working days following the completion of any testing required by this Rule. Test reports shall be in the forms specified by the California Air Resources Board and shall be transmitted via fax to the District's Compliance Division under cover of a completed District Form "10 Day Transmittal of Vapor Recovery Test Report".

#### 4.7 Test Methods

- 4.7.1 Tests shall be conducted in accordance with the latest version of the following ARB approved test methods, or their equivalents as approved by the U.S. Environmental Protection Agency (EPA), ARB, and the APCO.
- 4.7.1.1 Static Pressure Performance Test for Underground Tanks, ARB TP-201.3, and Aboveground Tanks, ARB TP-201.3B.
  - 4.7.1.2 Dynamic Pressure Performance Test, ARB TP-201.4.
  - 4.7.1.3 Air-to-Liquid Volume Ratio Test, ARB TP-201.5.
  - 4.7.1.4 Liquid Removal Test, ARB TP-201.6.
  - 4.7.1.5 Static Torque of Rotatable Phase I Adaptor, ARB TP-201.1B.
  - 4.7.1.6 Pressure Integrity of Drop Tube/Drain Valve Assembly, ARB TP-201.1C.
- 4.7.2 Those vapor recovery systems whose ARB Executive Orders specify different tests to be performed instead of, or in addition to, the referenced test methods, or which, by their design, preclude the use of the referenced test methods, shall be tested in accordance with the test procedures specified in the applicable ARB Executive Orders or as approved by the APCO, ARB, and EPA.
- 4.7.3 The Reid Vapor Pressure of gasoline shall be determined in accordance with ASTM D 5191-93.
- 4.7.4 Detection of leaks shall be in accordance with EPA Test Method 21.

