

REGULATION IV
PROHIBITIONS

RULE 419 BULK GASOLINE PLANTS AND TERMINALS

(Adopted 9-1-74; Revised 11-23-94, and 12-13-00)

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PART 1 GENERAL

1.1 Purpose

The purpose of this Rule is to limit the emissions of gasoline vapors from transfer operations at bulk gasoline plants and bulk gasoline terminals.

1.2 Applicability

The provisions of this Rule shall apply to gasoline loading, unloading, and storage operations at bulk gasoline plants and bulk gasoline terminals; and to any gasoline tank truck delivering or receiving gasoline at a bulk gasoline plant or bulk gasoline terminal, unless specifically exempted from this Rule.

1.3 Exemptions

- 1.3.1 The owner or operator of a bulk gasoline plant with an average daily throughput of no more than 4,000 gallons of gasoline per day, based on a rolling 30-day average, or no more than a total of 120,000 gallons of gasoline in any calendar month, shall be required to be in compliance with only subsections 3.3.11, 3.3.12, and 3.3.13 and shall be exempt from the remaining requirements of Part 3 of this Rule, provided that the records specified in Section 5.1.4 of this Rule are maintained. Any bulk gasoline plant that ever exceeds these exemption thresholds shall be subject to the provisions of Part 3 herein and shall remain subject to those provisions, even if its throughput later falls below the threshold.
- 1.3.2 Any stationary gasoline storage tank of 500 gallons capacity or less at a bulk gasoline plant shall only be subject to subsections 3.3.11, 3.3.12, and 3.3.13 and shall be exempt from the remaining requirements of Part 3 of this Rule, provided that the records specified in Section 5.1.4 of this Rule are maintained.
- 1.3.3 Operations involving the transfer of organic liquids with a vapor pressure less than 1.5 pounds per square inch absolute (psia) under actual loading conditions are exempt from the requirements of Parts 3 and 4 of this Rule, provided that the records specified in Section 5.1.3 of this Rule are maintained.

1.4 Effective Dates

This Rule has been in effect since September 1, 1974. The Rule in its present form is effective on December 13, 2000.

1.5 References

The requirements of this Rule are derived from Section 182 (b)(2) of the federal Clean Air Act.

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PART 2 DEFINITIONS

2.1 APCO

The Air Pollution Control Officer of the District or a designated representative of the Air Pollution Control Officer.

2.2 Bulk Gasoline Plant

A gasoline storage and distribution facility with an average daily throughput of less than 20,000 gallons of gasoline on a rolling 30-day average.

2.3 Bulk Gasoline Terminal

A gasoline storage and distribution facility which delivers gasoline to bulk gasoline plants or to commercial or retail accounts, and has a daily throughput of 20,000 gallons or more of gasoline on a rolling 30-day average.

2.4 District

The Monterey Bay Unified Air Pollution Control District (MBUAPCD).

2.5 Gasoline

Any petroleum distillate or petroleum distillate/alcohol blend having a Reid vapor pressure of 4 pounds per square inch or greater that is used as a fuel for internal combustion engines.

2.6 Gasoline Tank Truck

A delivery tank truck used at bulk gasoline plants, bulk gasoline terminals, or gasoline dispensing facilities, that is loading or unloading gasoline or that has loaded or unloaded gasoline on the immediately previous load.

2.7 Gasoline Vapors

The organic compounds in the vapor phase and any entrained liquid gasoline.

2.8 Leak-free

No observable liquid leaks greater than three drops per minute.

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2.9 Loading Facility

Any aggregation or combination of organic liquid loading equipment which is both: 1) owned or operated by one person, and 2) located so that all the organic liquid loading outlets for such aggregation or combination of loading equipment can be encompassed within any circle of 300 feet in diameter.

2.10 Organic Liquids

Liquids containing volatile organic compounds (VOCs) which are primarily but not exclusively derived from petroleum.

2.11 Rolling 30-day Average

The average daily throughput over any continuous 30-day period for all gasoline loading operations through all loading facilities at a bulk plant or terminal .

2.12 Submerged Fill Pipe

Any fill pipe, the discharge opening of which is entirely submerged when the liquid level is six inches above the bottom of the container. Submerged fill pipe when applied to a container which is loaded from the side is defined as any fill pipe the discharge opening of which is entirely submerged when the liquid level is 18 inches above the bottom of the container.

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).

2.14 Volatile Organic Compound (VOC)

As defined in District Rule 101, Definitions.

PART 3 REQUIREMENTS FOR BULK GASOLINE PLANTS

3.1 Applicability Thresholds for Bulk Gasoline Plants

This Part shall apply only to the loading, unloading, and storage of gasoline at any bulk gasoline plant with an average daily throughput of more than 4,000 gallons of gasoline, but less than 20,000 gallons of gasoline per day, based upon a rolling 30-day average. Any bulk gasoline plant that ever exceeds the 4,000 gallons average

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daily throughput applicability threshold of this Part shall be subject to the provisions of this Rule and shall remain subject to this Rule, even if that plant's throughput later falls below that threshold.

3.2 Vapor Balance Systems on Loading Facilities at Bulk Gasoline Plants

3.2.1 Each loading facility at a bulk gasoline plant subject to this Part shall be equipped with a vapor balance system between the gasoline storage tank and the incoming gasoline tank truck designed to capture and transfer gasoline vapors displaced during the filling of the gasoline storage tank.

3.2.2 Each loading facility at a bulk plant subject to this Part shall be equipped with a vapor balance system between the gasoline storage tank and the outgoing gasoline tank truck designed to capture and transfer gasoline vapors displaced during the loading of the gasoline tank truck.

3.3 Operational Requirements at Bulk Gasoline Plants

The following procedures shall be followed during all loading, unloading, and storage operations at any bulk plant subject to this Part:

3.3.1 Measures shall be taken to prevent liquid drainage from the loading device when it is not in use or to accomplish complete drainage before the loading device is disconnected.

3.3.2 All equipment associated with loading, unloading, and storage of gasoline shall be operated and maintained leak-free, vapor-tight, and in good working order.

3.3.3 Transfer lines shall be equipped with fittings that are vapor-tight and that automatically and immediately close upon disconnection.

3.3.4 All product transfers involving gasoline tank trucks at bulk gasoline plants subject to this Section shall be limited to vapor-tight gasoline trucks.

3.3.5 The vapor balance systems required by Sections 3.2.1 and 3.2.2 shall be connected between tank trucks and bulk plant storage tanks during all gasoline transfer operations.

3.3.6 All storage tank openings, including inspection hatches and gauging and sample devices, shall be vapor-tight when not in use.

3.3.7 The gasoline tank truck compartment hatch covers shall not be opened during product transfer.

3.3.8 All vapor balance systems shall be designed and operated at all times to prevent gauge pressure in the gasoline tank truck from exceeding 14 inches of water and vacuum from exceeding 5.9 inches of water during product transfers.

3.3.9 A pressure measurement device capable of measuring 20 inches of water gauge pressure within 0.098 inch of water precision, shall be calibrated and installed on

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the bulk gasoline plant vapor balance system at a pressure tap, located as closely as possible to the connection with the gasoline tank truck, to allow determination of compliance with Section 3.3.8.

- 3.3.10 No pressure vacuum relief valve in the bulk gasoline plant vapor balance system shall begin to open at a system pressure of less than 14 inches of water or at vacuum of less than 5.9 inches of water.
- 3.3.11 Filling of storage tanks shall be limited to submerged fill.
- 3.3.12 Loading of outgoing gasoline tank trucks shall be limited to submerged fill.
- 3.3.13 Transfer of gasoline shall be discontinued if any vapor or liquid leaks are observed.
- 3.3.14 Each calendar month, each vapor balance system and loading facility that loads gasoline tank trucks shall be inspected for liquid or vapor leaks during product transfer operations. For the purposes of this subsection, detection methods incorporating sight, sound, or smell are acceptable. Each detection of a leak shall be recorded under the provisions of Section 5.1.2. Appropriate corrective action must be taken immediately to correct the leak. Any leak must be repaired within 15 days of detection.

PART 4 REQUIREMENTS FOR BULK GASOLINE TERMINALS

4.1 Applicability Threshold for Bulk Gasoline Terminals

This Part shall apply only to the loading, unloading, and storage of gasoline at any bulk gasoline terminal with an average daily throughput of at least 20,000 gallons of gasoline, based upon a rolling 30-day average. Any bulk gasoline terminal that ever exceeds this applicability threshold shall be subject to the provisions of this Part and shall remain subject to those provisions, even if that terminal's throughput later falls below this threshold.

4.2 Vapor Recovery Systems

- 4.2.1 A person shall not load gasoline into any gasoline tank truck, trailer, or railroad car from any loading facility at any bulk gasoline terminal, unless the loading facility is equipped with a vapor recovery system designed to collect the gasoline vapors displaced from gasoline tank trucks, trailers, or railroad cars during product loading
- 4.2.2 The total organic compound emissions to the atmosphere from the vapor recovery system due to the loading of gasoline into gasoline tank trucks shall not exceed 0.67 pounds per 1000 gallons gasoline loaded. Compliance with the control efficiencies shall be determined using the test methods specified in Section 5.2 herein.

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4.3 Operational Requirements at Bulk Gasoline Terminals

The following procedures shall be followed during all loading, unloading, and storage operations at any bulk gasoline terminal:

- 4.3.1 Measures shall be taken to prevent liquid drainage from the loading device when it is not in use or to accomplish complete drainage before the loading device is disconnected.
- 4.3.2 The vapor recovery systems required by Section 4.2.1 and the gasoline tank truck's vapor recovery systems shall be connected during each loading of a gasoline tank truck at the loading facilities subject to this Part.
- 4.3.3 All vapor recovery and liquid loading equipment shall be designed and operated at all times to prevent gauge pressure in the gasoline tank truck from exceeding 18 inches of water during product loading.
- 4.3.4 A pressure measurement device capable of measuring 20 inches of water gauge pressure within 0.098 inch of water precision, shall be calibrated and installed on the bulk gasoline terminal vapor recovery and liquid loading equipment systems at a pressure tap, located as closely as possible to the connection with the gasoline tank truck, to allow determination of compliance with Section 4.3.3.
- 4.3.5 No pressure vacuum vent in the bulk gasoline terminal's vapor recovery system shall begin to open at a system pressure of less than 18 inches of water.
- 4.3.6 Loading of outgoing gasoline tank trucks shall be limited to submerged fill.
- 4.3.7 All equipment associated with loading gasoline shall be operated and maintained leak-free, vapor-tight, and in good working order.
- 4.3.8 Each calendar month, each vapor recovery system and each loading facility that loads gasoline tank trucks shall be inspected for liquid or vapor leaks during product transfer operations. For the purposes of this subsection, detection methods incorporating sight, sound, or smell are acceptable. Each detection of a leak shall be recorded under the provisions of Section 5.1.2. Appropriate corrective action must be taken immediately to correct the leak. Any leak must be repaired within 15 days of detection.
- 4.3.9 A person using control equipment pursuant to this Rule shall provide, properly install and maintain in calibration, in good working order and in operation, devices as specified in the Authority to Construct and the Permit to Operate, or as specified by the Air Pollution Control Officer, for indicating and recording temperatures, pressures, rates of flow or other operating conditions necessary to determine the degree and effectiveness of the control equipment.

PART 5 ADMINISTRATIVE REQUIREMENTS

12/13/00

Rule 419 (Bulk Gasoline Plants and Terminals)

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5.1 Record Keeping

- 5.1.1 All bulk gasoline plants and bulk gasoline terminals shall maintain daily records showing the quantity of all gasoline loaded into gasoline tank trucks.
- 5.1.2 All bulk gasoline plants and bulk gasoline terminals shall maintain a record of each monthly leak inspection required under Sections 3.3.14 or 4.3.8. Inspection records shall include, at a minimum, the following information:
 - 5.1.2.1 Date of inspection;
 - 5.1.2.2 Findings (may indicate no leaks discovered or location, nature, and severity of each leak);
 - 5.1.2.3 Leak determination method;
 - 5.1.2.4 Corrective action (date each leak repaired and reasons for any repair interval in excess of 15 calendar days); and
 - 5.1.2.5 Name and signature of person performing the inspection.
- 5.1.3 Any person claiming an exemption based on Section 1.3.3 shall keep daily records of the type of liquids loaded and vapor pressure.
- 5.1.4 Any person claiming an exemption from the provisions of either Part 3 or Part 4 based upon throughput shall keep daily throughput records.
- 5.1.5 All records necessary to demonstrate qualifications for the exemptions allowed in this Rule shall be maintained for five years after creation and shall be made available to the District upon request.
- 5.1.6 Records sufficient to demonstrate the continuous compliant operation of emissions control equipment installed pursuant to Part 4 shall be maintained.

5.2 Required Methods

- 5.2.1 The Reid vapor pressure for petroleum products shall be determined using Reid vapor pressure American Society of Testing and Materials (ASTM) Method No. D323-82 at the storage temperature.
- 5.2.2 The true vapor pressure of organic liquids that are not petroleum products shall be determined by ASTM Method D2879-86.
- 5.2.3 Vapor-tightness for gasoline tank trucks shall be determined according to the California Air Resources Board Certification and Test Procedures for Vapor Recovery Systems of Gasoline Delivery Tanks.
- 5.2.4 Compliance with the vapor recovery system requirements of this Rule shall be determined according to the California Air Resources Board Test Methods 202

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or 203, as appropriate. Alternatively, EPA methods may be used in conjunction with procedures specified in 40 CFR 60.503.

- 5.2.5 EPA Method 21 (Determination of Volatile Organic Compound Leaks) as specified in 40 CFR 60 Appendix A, shall be used to determine gasoline vapor leaks from vapor recovery system piping and components required by this Rule.
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