REGULATION 8 ORGANIC COMPOUNDS RULE 39 GASOLINE BULK PLANTS AND GASOLINE <u>CARGO TANKS DELIVERY VEHICLES</u>

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REGULATION 8 ORGANIC COMPOUNDS RULE 39 GASOLINE BULK PLANTS AND GASOLINE CARGO TANKS DELIVERY VEHICLES

(Adopted October 7, 1987)

8-39-100 GENERAL

8-39-101 Description: The purpose of this Rule is to limit emissions of organic compounds from gasoline transfer operations at gasoline bulk plants and gasoline cargo tanks loading at gasoline bulk plants delivery vehicles.

(Amended June 1, 1994)

8-39-110 Exemptions

8-39-111 Exemption, Delivery Vehicle Exemptions: The requirements of Subsections 8-39-304.1, and 304.2, <u>304.3</u> and 304.<u>36</u> do not apply to gasoline delivery vehicles which that deliver exclusively to:

<u>111.1</u> Storage tanks with an actual capacity of less than 250 gallons.

- 111.<u>12</u> Storage tanks installed prior to February 18, 1987, with an annual throughput of less than <u>227 cubic meters (</u>60,000 gallons) <u>provided the storage tanks</u> which were not equipped with <u>are exempt from</u> Phase I <u>requirements</u> <u>pursuant to Regulation 8, Rule 7</u> vapor recovery as of July 1, 1983.
- 111.23 Storage tanks with a storage capacity of less than 2.2 cubic meters (550 gallons) used primarily for the <u>re</u>fueling of implements of husbandry as defined in Division 16, Chapter 1, of the California Vehicle Code, <u>provided</u> such tanks are equipped with a submerged fill pipe.
- 111.34 Storage tanks where the APCO determines that <u>the</u> Phase I <u>gasoline</u> vapor recovery <u>requirements identified in Regulation 8, Rule 7 are is</u>-not feasible. (Amended June 1, 1994)
- 8-39-112 Exemption, Gasoline Bulk Plants Without Phase I Vapor Recovery Delivery to Exempt Facilities: The requirements of Section 8-39-302 do not apply to bBulk gasoline plants that distribution facilities which load exclusively to gasoline cargo tanks delivery vehicles servicing stationary tanks without Phase I vapor recovery unit(s) pursuant to Section 8-39-111.2 which are exempt from Phase I as defined in Section 8-39-209 provided that submerged fill is used. are exempt from the requirements of Section 8-39-302 and 8-39-307.2.
- 8-39-113 <u>Exemption, Tank Gauging and Inspection Exemption</u>: Any <u>gasoline cargo</u> tank may be opened for gauging or inspection when loading operations are not in progress, provided that such the tank is not pressurized.
- 8-39-114 Maintenance and Repair Exemption: The requirements of Section 8-39-306 shall not apply to spills and vapor leaks resulting from maintenance or repair operations provided proper operating practices are employed to minimize evaporation of gasoline into the atmosphere.
- **8-39-115** Exemption, Equipment Leaks: All bulk plant equipment except the connections at the interface between the loading rack and the cargo tank is subject to the leak requirements in Regulation 8, Rule 18. Bulk plant loading hose and vapor recovery hose connectors that mate to compatible cargo tank loading and vapor recovery connectors, and connectors on portable maintenance containers and slop tanks are subject to the requirements of Section 8-39-305.
- **8-39-116 Exemption, Aviation Gasoline Bulk Plants:** Bulk Plants distributing only aviation fuels are exempt from the requirements of Section 8-39-307.2.

8-39-200 DEFINITIONS

8-39-201 CARB Certified Vapor Recovery System: A <u>gasoline bulk plant</u> vapor recovery system <u>that which</u> has <u>a current been</u> certificationed to operate issued by the

California Air Resources Board (CARB), pursuant to Section 41954 of the <u>California</u> Health and Safety Code.

- **8-39-2032** Gasoline: <u>Any Ppetroleum</u> distillate<u>s including oxygenates</u>, that has <u>used as motor</u> fuel with a Reid vapor pressure <u>of greater than</u> four (4.0) pounds <u>or greater</u>, which includes aviation fuels and additives.
- **8-39-2023** Gasoline Bulk Plant: A <u>storage and distributioning</u> facility <u>that which</u> receives gasoline by <u>gasoline cargo</u> tanks, <u>truck</u>, <u>stores it in stationary tanks</u>, and loads it into <u>gasoline cargo</u> tanks <u>trucks</u> for delivery to service stations <u>and or</u> other distribution points. <u>Additives</u>, ethanol and oxygenates may be delivered to the bulk plant using gasoline cargo tanks.
- **8-39-204** Gasoline Cargo Tank: Any container, including its associated pipes and fittings, that is attached to a vehicle used to transport gasoline and is required to be certified in accordance with Section 41962 of the California Health and Safety Code.
- 8-39-204 Leak Free: A liquid leak of less than four drops per minute excluding losses which occur upon disconnecting transfer fittings, provided such disconnect losses do not exceed 10 milliliters (0.34 fluid ounces) per disconnect, averaged over three disconnects.
- 8-39-2405 <u>Non-Methane</u> Organic Compound (NMOC): Any compound of carbon, excluding methane, carbon monoxide, carbonic acid, metallic carbides, or metallic carbonates and ammonium carbonate.

(Adopted June 1, 1994)

- **8-39-206 Portable Maintenance Container:** A mobile steel non-ferrous metal tank with a capacity of less than 50 gallons, equipped with two or more hose connectors, that temporarily stores gasoline during maintenance and repair on loading racks.
- **8-39-207** Reid Vapor Pressure: The vapor pressure of a volatile organic liquid at 100 degrees Fahrenheit, except liquefied petroleum gases, as determined in accordance with the most current version of ASTM D323.
- **8-39-208** Slop Tank: Any container that has the primary function of temporarily storing collecting petroleum product and other liquids that have been collected during maintenance or loading operations and are not loaded into a gasoline cargo tank.
- 8-39-2059 Submerged Fill Pipe: Any storage tank fill discharge pipe or nozzle which that meets either of the following conditions:
 - 20<u>9</u>5.1 <u>If Where</u> the tank is filled from the top, the end of the discharge pipe is or nozzle must be totally submerged when the liquid level is <u>six 15 cm (6 in.)</u> inches above from the bottom of the tank.
 - 20<u>9</u>5.2 <u>If Where</u> the tank is filled from the side, the discharge pipe <u>is or nozzle must</u> be totally submerged when the liquid level is <u>46 cm (18 inches.)</u> <u>above from</u> the bottom of the tank.
- 8-39-20610 Switch Loading: For the purpose of this Rule, <u>The switch loading is the</u> loading of <u>an</u> organic liquids with a Reid vapor pressure of less than 4.0 pounds into a <u>gasoline</u> <u>cargo tank delivery vehicle</u> where the previous load was gasoline.
- **8-39-211** Total Organic Compound (TOC): Any compound of carbon, including methane, excluding carbon monoxide, carbonic acid, metallic carbides, metallic carbonates and ammonium carbonate.
- **8-33-212** Vapor Processing Unit: Equipment designed to dispose of hydrocarbon vapors to prevent their emission into the atmosphere.
- **8-39-213 Vapor Recovery System:** A system capable of collecting and disposing of hydrocarbon vapors to prevent their emission into the atmosphere.
- **8-39-207** Vapor Tight: A leak of less than 100 percent of the lower explosive limit on a combustible gas detector measured at a distance of 2.5 cm (1 in.) from the source or not visible evidence of air entrainment in the sight glasses of liquid delivery hoses.
- 8-39-208 Vapor Tight Gasoline Cargo Tank: A leak that does not exceed the standards specified in the CARB "Certification and Test Procedures for Vapor Recovery Systems on Gasoline Delivery Tanks."
- 8-39-209 Deleted June 1, 1994
- 8-39-300 STANDARDS

- 8-39-301 Phase I Requirements: A person shall not transfer or allow the transfer of gasoline from gasoline delivery vehicles into stationary tanks at gasoline bulk plants unless a CARB certified Phase I vapor recovery system is used.
- 8-39-302 Gasoline Bulk Plant Emission Limitations: A person shall not load or permit the loading of gasoline into or out of a gasoline bulk plant unless a CARB certified vapor recovery system is properly connected and used. Emissions of non-methane organic compounds from a gasoline bulk plant vapor recovery system shall not exceed Such systems shall not emit into the atmosphere more than 60 grams of organic compounds per cubic meter (0.50 pounds per I,000 gallons) of organic liquid loaded. Switch loading operations are shall be subject to this standard. Where multiple vapor processing units ors are used, each vapor processing unit or shall be subject to this standard.

(Amended June 1, 1994)

- 8-39-303 Vapor Recovery System Requirements: Vapor recovery systems installed at gasoline bulk plants shall be subject to CARB certification.
- 8-39-304 <u>Gasoline Cargo Tank Delivery Vehicle</u> Requirements: <u>An owner or operator of a</u> <u>Gasoline cargo tank</u> delivery vehicles are subject to must shall comply with the following requirements:
 - 304.1 Vapor Integrity Requirement: An owner or operator of a gasoline cargo tank person shall only not operate, or allow the operation of, a gasoline <u>cargo tank</u> delivery vehicle unless that displays a valid State of California decals, as required by Section 41962 of the Health and Safety Code, <u>and</u> which attests to the vapor integrity of the <u>cargo</u> tank, are displayed.
 - 304.2 Vapor Recovery Requirement: Any gasoline <u>cargo tank delivery vehicle</u> loading at a <u>gasoline bulk plant facility subject to the requirements of Section</u> 8-39-302 shall be equipped with and use a vapor recovery system <u>certified</u> <u>pursuant to Section 41962 of the California Health and Safety Code</u>.
 - 304.3 Vapor Return Requirement: An owner or operator of a gasoline cargo tank person shall not load at a gasoline bulk plant facility that is exempt from the Section 8-39-302 gasoline bulk plant emission limitation pursuant to under Section 8-39-112 if any portion of the gasoline cargo tank's prior preceding load, or any portion thereof, was delivered to a storage tank equipped with a Phase I vapor recovery system.
 - 304.4 Purging Requirement: An owner or operator of a gasoline cargo tank person shall not purge gasoline vapor or liquid from the <u>a cargo</u> tank of <u>a delivery</u> vehicle to the atmosphere, <u>at any time</u>.
 - 304.5 Vapor Tight Requirement: The gasoline cargo tank shall be vapor tight such that any leak resulting in a pressure change is below the standards set forth in CARB CP-204, Certification Procedures for Vapor Recovery Systems of Cargo Tanks.
 - <u>304.6 Vapor Leak Requirement: Gasoline cargo tank liquid fill and vapor return</u> <u>connectors shall not leak vapor as set forth in CARB CP-204, Certification</u> <u>Procedure for Vapor Recovery Systems of Cargo Tanks.</u>
 - <u>304.7 Liquid Leak Requirements: Gasoline cargo tank liquid fill and vapor return</u> <u>connectors shall not leak liquid gasoline such that the equipment meets the</u> <u>standards set forth in CARB CP-204, Certification Procedure for Vapor</u> <u>Recovery Systems of Cargo Tanks.</u>
 - 304.8 Loading Requirement: An owner or operator of a gasoline cargo tank shall only load, or allow the loading of the gasoline cargo tank at a gasoline bulk plant if the gasoline cargo tank product and vapor connectors are compatible with the associated fittings of the gasoline bulk plant, and meet the vapor and liquid leak requirements.
 - <u>304.9</u> Maintenance Requirement: An owner or operator of a gasoline cargo tank shall maintain all equipment associated with the gasoline cargo tank in good working order.
- 8-39-305 <u>Gasoline Bulk Plant Equipment</u> Maintenance and Repair: An owner or operator of a gasoline bulk plant shall comply with the following requirements:

- <u>305.1</u> All equipment associated with gasoline delivery, and loading and vapor recovery operations shall be maintained in good working order.
- 305.2 Prior to any equipment maintenance and/or repair on the product or vapor hoses that requires opening the hoses to the atmosphere, a gasoline bulk plant owner or operator shall transfer any retained gasoline in these hoses to either a portable maintenance container equipped with two hose connectors or to a slop tank through a hose connector. The cover, seal, lid, or connector shall be in a closed position at all times except when the device is in use for liquid transfer, inspection, maintenance, or repairs.
- 305.3 Any portable maintenance container or slop tank hose connectors shall be vapor tight and have no liquid leaks in accordance with the standards set forth in CARB CP-202, Certification Procedure for Vapor Recovery Systems of Bulk Plants.
- 8-39-306 Operating Practices: An owner or operator of a gasoline cargo tank or gasoline bulk plant person Gasoline shall not be spilled gasoline, discarded it in sewers, stored it in open containers, or handled it in any other manner that would result in its evaporation to the atmosphere or contamination of the groundwater or sewer.
- 8-39-307 Loading Practices: Loading operations which use vapor processing equipment shall be operated in such a manner that the vapor processing capacity is not exceeded.
 - <u>307.1</u> Loading Requirement: An owner or operator of a gasoline bulk plant shall only load, or allow the loading of, a gasoline cargo tank at the gasoline bulk plant if the gasoline cargo tank product and vapor connectors are compatible with the associated fittings of the gasoline bulk plant.
 - 307.2 An owner or operator of a gasoline bulk plant shall not load, or permit the loading of, gasoline into or out of a gasoline bulk plant unless a CARB-certified Phase I vapor recovery system, or a vapor recovery system for which a complete application for certification has been submitted to CARB, is properly connected and used.
 - 307.3 An owner or operator of a gasoline bulk plant shall not load, or permit the loading of gasoline that results in the release of emissions through any pressure/vent valve on the vapor recovery system in excess of the standards set forth in CARB CP-202, *Certification Procedure for Vapor Recovery Systems of Bulk Plants.* Should a loading event result in such a release, the owner or operator shall finish the load, then shutdown the affected portion of the vapor recovery system until the cause of the release has been determined and repairs have been completed.
 - 307.4 An owner or operator of a gasoline bulk plant shall not load, or permit the loading of, gasoline into a gasoline cargo tank unless the loading hose connector and vapor recovery connector are free from gasoline liquid and vapor leaks, such that the equipment meets the standards set forth in CARB CP-202, Certification Procedure for Vapor Recovery Systems of Bulk Plants. Should a loading event result in the release of excess emissions, the owner or operator shall finish the load, then shutdown the affected loading arm and its vapor recovery system until the cause of the excessive emissions has been determined and repairs have been completed.
- 8-39-308 <u>Gasoline Bulk Plant</u> Vapor Recovery System Requirements Loading Rack: Vapor recovery systems are subject to the following requirements: 308.1 Organic compound emissions from each delivery and loading operation shall be captured and controlled by a CARB Certified Vapor Recovery System.
 - 308.2 The <u>vVapor recovery</u> systems shall be maintained and operated in a manner that prevents such that the gauge pressure in the delivery gasoline cargo tank <u>headspace does not from</u> exceeding 46 cm (18.0 inches.) of water column during product loading operations.
 - 308.3 Vapor recovery system hose connectors shall be vapor tight and have no liquid leaks in accordance with the standards set forth in CARB CP-202, Certification Procedure for Vapor Recovery Systems of Bulk Plants.

- <u>308.4</u> Effective January 1, 2010 a pressure gauge shall be installed on the vapor collection piping as close to the vapor hose connector as feasible. For plants that utilize top loading arms, a pressure gauge shall be installed on the fixed vapor piping as close to the end or the top loading arm, as feasible.
- <u>308.5</u> Gauge pressure of each vapor hose shall be maintained below the CARBcertified set pressure of the pressure/vacuum valve(s) of the vapor recovery system at all times.
- <u>308.6 Effective July 1, 2009, the maximum allowable gauge pressure in all new</u> vapor piping systems connected to the loading rack shall be 12.0 inches of water column, if installed after July 1, 2009.

8-39-400 ADMINISTRATIVE REQUIREMENTS

- **8-39-401** Equipment Installation and Modification: <u>An owner or operator of a gasoline bulk</u> plant who installs or modifies equipment at a gasoline bulk plant shall meet the following requirements:
 - <u>401.1</u> A person shall not Obtain an authority to construct pursuant to Regulation 2-<u>1-301 prior to</u> installation or modification of y stationary gasoline storage tanks with a nominal capacity of more than greater than 1 cubic meter (260 gallons) and/or or installation or modification of vapor recovery equipment._T exclusive of repair, unless an authority to construct has been obtained pursuant to Section 301 of Regulation 2, Rule I. For the purposes of this rule, installation and modification does not include maintenance and repair activities.
 - 401.2 Submit a complete application to CARB for certification or recertification pursuant to Section 41954 of the California Health and Safety Code before undertaking any of the following activities:
 - 401.2.1 Operation of a new or replacement vapor recovery system;
 - 401.2.2 Replacement or modification of equipment that would result in a greater gasoline loading capacity than the bulk plant's CARB certified throughput limit. CARB throughput limit shall not be exceeded unless a new CARB certification is issued that permits the higher throughput limit.
 - 401.2.3 Operation of a vapor recovery system in a mode not certified by CARB.
- 8-39-402 Implementation: Any person who must install or modify vapor recovery equipment as required by Section 8-39-302 of this rule shall meet the following increments of progress:
 - (a) By April 1, 1988 submit an application to the APCO for Authorities to Construct.
 - (b) By April 1, 1989, be in final compliance.
- 8-39-403 Stationary Tanks: Any person who must install Phase I vapor recovery on stationary tanks at a gasoline dispensing facility as required by the March 4, 1987 amendments to Regulation 8, Rule 7 shall meet the following increments of progress:
 - (a) By September 1, 1989, submit an application to the APCO for Authorities to Construct.
 - (b) By March 1, 1990, be in final compliance.

(Adopted October 7, 1987; Amended December 2, 1987)

- 8-39-404 Bulk Plant Monitoring, Inspection, Notification and Reporting Requirements: Upon notification by the APCO, an owner or operator of a gasoline bulk plant shall develop and submit for APCO approval a monitoring, inspection, notification and reporting plan that meets the following requirements, as applicable: 404.1 40 CFR Part 63, Subpart R, §63.424, §63.425, and §63.428.
 - 404.2 40 CFR Part 63, Subpart BBBBBB, §63.11087, §63.11088, §63.11089, §63.11092, §63.11093, §63.11094 and §63.11095.

8-39-500 MONITORING AND RECORDS

- **8-39-501 Burden of Proof:** The burden of proof of eligibility for exemptions from this rule is on the applicant. Persons seeking such an exemption under this rule shall maintain adequate records and furnish them to the APCO upon request.
- **8-39-502 Biennial Source Test:** The gasoline bulk plant owner or operator shall conduct a biennial source test not less than 18 months, but less than 30 months from the previous source test, in accordance with the provisions in Section 8-39-601. A copy of the final report including raw data sheets shall be submitted to the APCO (Attention: Source Test) within 45 days of the completed test. The gasoline bulk plant owner or operator shall retain on the site for a period of at least five (5) years a copy of the final report for each biennial source test.

8-39-600 MANUAL OF PROCEDURES

8-39-601 Emission Rate Determination for (Vapor <u>Recovery</u><u>Processing</u> Systems): Emissions of non-methane organic compounds from The means by which mass emission rates of gasoline bulk plant vapor recovery processing system(s) systems are measured are set forth in the shall be determined in accordance with the Manual of Procedures, Volume IV, ST-34 or EPA Method 25.

(Amended June 1, 1994)

- 8-39-602 Emission Rate Determination for (Vapor Balance System): The means for determining mass emission rates from vapor balance systems at gasoline bulk plants shall be determined in accordance with the are set forth in the Manual of Procedures, Volume IV, ST-3.
- 8-39-603 Back Pressure Determination on Vapor Recovery System Loading Pressure: The back pressure on vapor recovery systems during un-loading or loading of gasoline cargo tanks shall be determined in accordance with means of determining gauge pressure in the delivery truck are set forth in the Manual of Procedures, Volume IV, ST-34.

(Amended June 1, 1994)

- 8-39-604 Vapor Tight <u>Gasoline Cargo Tanks</u> <u>Delivery Vehicles</u>: The <u>determination of</u> <u>vapor tight for gasoline cargo tanks shall be in accordance with means for</u> <u>determining vapor integrity for delivery vehicles are set forth in</u> the Manual of Procedures, Volume IV, ST-33 or CARB Procedure TP-204.1 or TP-204.2.
- 8-39-605 Analysis of Samples: Reid vapor pressure analyses shall be conducted in accordance with the Samples of gasoline as specified in Section 8-39-203 shall be analyzed as prescribed in the Manual of Procedures, Volume III, Method 13 or the most current version of ASTM D323.
- 8-39-606 Vapor Leak Concentration Determination: Determination of the concentration of vapor leaks shall be conducted in accordance with CARB TP-204.3, Determination of Leak(s).