

**REGULATION 8
ORGANIC COMPOUNDS
RULE 44
MARINE TANK VESSEL LOADING OPERATION TERMINALS**

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**REGULATION 8
ORGANIC COMPOUNDS
RULE 44
MARINE TANK VESSEL LOADING OPERATION TERMINALS**

(Adopted January 4, 1989)

8-44-100 GENERAL

- 8-44-101 Description:** The purpose of this ~~rule~~ Rule is to limit emissions of ~~precursor~~ organic compounds into the atmosphere from ~~marine tank vessel operations~~ the loading of organic liquid or the loading into tank vessels with prior cargo of organic liquid at marine terminals.
- 8-44-110 Exemption, Loading Events:** Sections 8-44-301 through 305 of this Rule shall not apply to loading events of less than 159 cubic meters (1,000 bbls).
- 8-44-111 Exemption, Marine Tank Vessel Fueling:** Sections 8-44-301 through 305 of this Rule shall not apply to the loading of organic liquids associated with the fueling (bunkering) of marine tank vessels.
- 8-44-112 Exemption, Lightering:** This Rule shall not apply to the transfer of organic liquids from one marine vessel to another marine vessel.
- 8-44-113 Delayed Compliance, Limited Trade Vessel:** Until July 1, 1992, sections 8-44-301 through 304 of this Rule shall not apply to the loading of organic liquids into vessels making infrequent visits.
- 8-44-114 Delayed Compliance, Small Terminals:** Until July 1, 1992, sections 8-44-301 through 304 of this Rule shall not apply to small terminals.
- 8-44-115 Limited Exemption, Storm Ballasting:** During the months of November through April, Section 8-44-301 shall not apply to the introduction of ballast water into a cargo tank for which the prior cargo was a regulated organic liquid, provided (1) heavy seas are expected to be encountered immediately upon departure from San Francisco Bay, (2) this ballasting is necessary to ensure marine tank vessel safety in these heavy seas, and (3) the owner or operator of the vessel provides written notice to the APCO no less than 24 hours before the commencement of the ballasting.

8-44-200 DEFINITIONS

- 8-44-201 Aviation Gas:** Gasoline suitable for use in piston-driven aircraft.
- 8-44-202 Ballasting:** The act of loading seawater into a marine tank vessel cargo tank to obtain proper propeller, rudder and hull immersion.
- 8-44-20340 Crude Oil:** A naturally occurring mixture consisting predominantly of hydrocarbons and/or sulfur, nitrogen and oxygen derivatives of hydrocarbons ~~that~~ which is removed from the earth in a liquid state or is capable of being so removed.
- 8-44-204 District Waters:** The water bodies within the District's boundaries and the Pacific Ocean area beginning at the intersection of the Pacific Ocean and the Marin-Sonoma County boundary; and proceeding southwesterly to the intersection of the boundary of the California Coastal Waters at a point having the coordinates of 38° North Latitude and 124.5° West Longitude; southeasterly along said boundary of the California Coastal Waters to a point having coordinates of 37° North Latitude and 123.5° West Longitude; and then northeasterly to the intersection of the Pacific Ocean and the San Mateo-Santa Cruz boundary.
- 8-44-205 Emission Control Equipment:** Any equipment, machinery, apparatus or device used to recover or reduce emissions of organic vapors from escaping into the atmosphere.
- 8-44-20609 Gas Tight:** A condition that exists when the concentration of ~~precursor~~ organic compounds, measured 1 centimeter or less from any source, does not exceed 1,000~~10,000~~ ppm (expressed as methane) above background.

- 8-44-207 Gasoline:** Any organic liquid suitable for use as a fuel in a spark-ignited, internal combustion engine.
- 8-44-208 Gasoline Blending Stocks:** Any organic liquid used as a component of gasoline, including, but not limited to aromatic or alcohol octane boosters and oxygenates, isomerate, reformate, alkylate, straight run gasoline, cat gasoline, pyrolysis gasoline, FCC gasoline and light hydrocrackate.
- 8-44-209 JP-4 Jet Fuel:** A kerosene and naphtha-based fuel used primarily in military jet aircraft.
- 8-44-21008 Leak Free:** A liquid leak of less than four drops per minute.
- 8-44-21107 Loading Event:** An incident or occurrence beginning with the connecting of a marine terminal storage tanks or a marine tank vessel cargo tank to a receiving marine tank vessel by means of piping or hoses, the transferring of organic liquid cargo from the storage or cargo tank into the receiving marine tank vessel and ending with the disconnecting of the pipes or hoses.
- 8-44-21203 Marine Tank Vessel:** Any marine vessel that carries which is specially constructed or converted to carry liquid bulk cargo in tanks.
- 8-44-21304 Marine Terminal:** Any facility or structure constructed to load or unload organic liquid bulk cargo into marine tank vessels.
- 8-44-21402 Marine Vessel:** Any tugboat, tanker, freighter, passenger ship, barge or other boat, ship or watercraft (as defined in Section 39037.1 of the California Health and Safety Code) except those used primarily for recreation.
- 8-44-21506 Organic Compound, Precursor:** Any organic compound as defined in Regulation 1, Section 233 excepting the non-precursor organic compounds in Regulation 1-234.
- 8-44-216 Prior cargo:** The last cargo that was held in a marine tank vessel cargo tank before the current loading event or other operation.
- 8-44-21704 Regulated Organic Liquid:** For the purpose of this rule, regulated organic liquid is:
217.1 Until January 1, 2007: defined as all gasoline, gasoline blending stocks, aviation gas, and aviation fuel (JP-4 jet fuel type) and crude oil.
217.2 Effective January 1, 2007: all gasoline, gasoline blending stocks, aviation gas, JP-4 jet fuel, crude oil, and any other organic compound or mixture of organic compounds that exists as a liquid at actual conditions of use or storage that has a Reid vapor pressure greater than 2.0 psia.
- 8-44-218 Unregulated Organic Liquid:** Any organic compound or mixture of organic compounds that exists as a liquid at actual conditions of use or storage and that has a Reid vapor pressure less than or equal to 2.0 psia.
- 8-44-219 Venting:** The act of forcing gases from a marine tank vessel cargo tank by introducing air, inert gas, or any other gas into the cargo tank, including inerting, purging and vapor-freeing.
- 8-44-211 Loading of Organic Liquid:** The loading of an organic liquid or the loading into a tank vessel where the prior cargo was an organic liquid.
- 8-44-212 Infrequent Visits:** Not more than two loading events for any tank vessel in the District in any calendar year.
- 8-44-213 Small Terminal:** Any marine terminal with a total organic liquid loading of less than 159,000 cubic meters (1,000,000 bbls) in any calendar year after 1985. Any marine terminal that loads more than 159,000 cubic meters (1,000,000 bbls) in any calendar year after 1985 cannot qualify for the small terminal exemption.

8-44-300 STANDARDS

- 8-44-301 Marine Terminal Loading Limit:** By July 1, 1991, a person shall not load or permit the loading of an organic liquid into a marine tank vessel within the District unless:
301.1 The emissions of precursor organic compounds are limited to 5.7 grams per cubic meter (2 lbs per 1000 bbls) of organic liquid loaded, or
301.2 The emissions of precursor organic compounds are reduced at least 95 percent by weight from uncontrolled conditions.

- 8-44-301** Limitations on Marine Tank Vessel Operations: A person shall not conduct any of the following operations within the District or within District Waters unless emissions are controlled in accordance with the requirements of Section 8-44-302:
- 301.1 Load a regulated organic liquid into a cargo tank of a marine tank vessel;
 - 301.2 Load any liquid, including water for ballasting, into a cargo tank of a marine tank vessel when the tank's prior cargo was a regulated organic liquid unless the residual organic vapors in the cargo tank were first verified to have a concentration no greater than 10,000 ppm (expressed as methane), and the records specified in Section 8-44-501.9 were maintained;
 - 301.3 Effective January 1, 2007, vent a marine tank vessel cargo tank that contains a regulated organic liquid or – after cargo discharge, during tank cleaning, purging, or gas freeing, or under any other circumstances – vent a marine tank vessel cargo tank for which the prior cargo was a regulated organic liquid unless the residual organic vapors in the cargo tank were first verified to have a concentration no greater than 10,000 ppm (expressed as methane), and the records specified in Section 8-44-501.9 were maintained.
- ~~**8-44-302** Emission Control Equipment: The emission control equipment shall be designed and operated to collect and process all organic compound emissions from the loading of organic liquids into marine vessels.~~
- 8-44-302** Control Requirements: A person conducting an operation from which emissions must be controlled pursuant to Section 8-44-301 shall:
- 302.1 Limit emissions of organic compounds to 5.7 grams per cubic meter (2 lbs per 1000 bbls) of organic liquid loaded, or reduce emissions by at least 95 percent by weight from uncontrolled conditions.
 - 302.2 Use emission control equipment that is designed and operated to collect and process all organic compound emissions from the loading, ballasting, or venting operation.
 - 302.3 Maintain leak free and gas tight all marine tank vessel hatches, pressure relief valves, connections, gauging ports and vents, and any other equipment associated with the operation, regardless of where it is located.
 - 302.4 When a gas or liquid leak is discovered that violates the requirements of Section 8-44-302.3, it shall be tagged immediately and repaired within 4 hours of discovery.
- ~~**8-44-303** Operating Practice: Effective July 1, 1991, all hatches, pressure relief valves, connections, gauging ports and vents associated with the loading of organic liquid into marine vessels at a marine terminal shall be maintained to be leak free and gas tight. The owner or operator of any equipment associated with the loading of organic liquid into tank vessels at a marine terminal shall maintain that equipment to be leak free and gas tight.~~
- ~~**8-44-304** Certification Equipment Maintenance: Effective July 1, 1991, a person shall not load or permit the loading of organic liquid into a marine vessel unless:~~
A person conducting an operation from which emissions must be controlled pursuant to Section 8-44-301 shall
- ~~304.1 The owner or operator post or have readily available the certification that the marine tank vessel is leak free, gas tight and in good working order as required by United States Coast Guard regulations.~~
of the tank vessel loading organic liquid certifies to the terminal that the vessel is leak free, gas tight and in good working order, and
 - ~~304.2 Loading ceases any time gas or liquid leaks as defined by Section 8-44-208 or 209 are discovered. Loading may continue only after leak(s) have been repaired.~~
- 8-44-305** Ozone Excess Day Prohibition: Effective July 1, 1989, and thereafter, loading of organic liquid into any marine tank vessel shall not be allowed on any day that the District predicts an excess of any Federal Ambient Air Quality Standard for ozone unless the emissions of precursor organic compounds are reduced at least 95% by weight from uncontrolled conditions, or they are limited to 5.7 grams per cubic meter (2 lbs/1000 barrels).

8-44-400 ADMINISTRATIVE REQUIREMENTS

8-44-401 Compliance Schedule: ~~Any owner or operator of a marine terminal subject to Sections 8-44-301 through 305 of this Rule shall comply with the following increments of progress:~~

- ~~401.1 By July 1, 1989, submit to the APCO a control plan which describes the steps and schedule that will be taken to achieve compliance with the requirements of this Rule. This plan must be updated annually until final compliance with Section 8-44-301 is achieved.~~
- ~~401.2 By January 1, 1990, submit to the APCO an application for an authority to construct any shore side equipment required to comply with the requirements of Section 8-44-301.~~

~~Failure to meet any provision of the plans submitted in accordance with Section 8-44-401 is considered a violation.~~

8-44-402 Safety/Emergency Operations: Nothing in this rule shall be construed as to:

- 402.1 Require any act or omission that would be in violation of any regulation or other requirement of the United States Coast Guard or;
- 402.2 Prevent any act or omission that is necessary to secure the safety of a vessel or for saving life at sea.

8-44-500 MONITORING AND RECORDS

8-44-501 Record Keeping: ~~Effective February 1, 1989, Aa person seeking exemption under subject to Sections 8-44-110 or, 111, or subject to Sections 143, 144, 301, 302 or 304 through 305 of this Rule shall maintain operating records regarding each loading event or other operation. The records shall be retained by the marine terminal operator (or shipping agent in the case of offshore venting or offshore vessel-to-vessel loading) maintained at the terminal for at least two years and shall be made available to the APCO upon request. The records shall include but are not limited to:~~

- ~~501.1 The type of event, name(s) of vessels and location of the marine terminal at which the loading event occurred.~~
- ~~501.2 The company or companies responsible for the event/operation of the marine terminal.~~
- ~~501.3 The date(s) and times at which the tank-vessel(s) arrived and departed from the location of the event/marine terminal.~~
- ~~501.4 The name, registry of the vessel loaded and legal owner of the vessel(s).~~
- ~~501.5 The prior cargo, including Reid vapor pressure, carried by each loaded or vented tank that tank vessel.~~
- ~~501.6 The type, and amount and Reid vapor pressure of each organic liquid cargo loaded into the a marine tank vessel, or the type of venting gas used for each vented tank.~~
- ~~501.7 The condition of each/the tanks prior to being loaded or vented, i.e., cleaned, crude oil washed, inerted/gas-freeed, etc.~~
- ~~501.8 The loading conditions at the time of the event including but not limited to the loading rate, the temperature of the organic liquid as loaded, ambient temperature, usage of an inert gas system and method of control.~~
- ~~501.9 For uncontrolled loading of liquid or uncontrolled venting as allowed by Sections 8-44-301.2 or 301.3, monitoring records verifying a residual organic concentration no greater than 10,000 ppm (expressed as methane).~~
- ~~501.10 Certifications required by Section 8-44-304.~~

8-44-502 Burden of Proof: Persons seeking to demonstrate compliance with Subsection 8-44-301.4 must maintain adequate test data and provide verification opportunities to the APCO on request.

8-44-503 Monitoring and Recordkeeping for Unregulated Organic Liquid: Effective June 1, 2006, a person responsible for the loading into a marine tank vessel of an unregulated organic liquid shall perform the monitoring specified in Sections 8-44-503.1 through 503.3. Records of this monitoring shall be retained by the marine terminal operator (or shipping agent in the case of offshore vessel-to-vessel loading)

for at least two years and shall be made available to the APCO upon request. In addition, these records shall be submitted to the APCO on a quarterly basis.

503.1 The data specified in Sections 8-44-501.1 through 501.8.

503.2 The flashpoint and Reid vapor pressure of the loaded liquid and prior cargo.

503.3 The organic concentration in the tank being loaded at hourly intervals during the loading, or the organic concentration immediately prior to commencement of venting operations.

8-44-600 MANUAL OF PROCEDURES

8-44-601 Determination of Emissions: Emissions of ~~precursor~~ organic compounds as specified in Section 8-44-301 shall be measured as prescribed in the Manual of Procedures, Volume IV, ST-34. This test shall be conducted so that the emissions from at least the last 50 percent of the total organic liquid loaded are included.

8-44-602 Efficiency and Mass Emission Determination (Vapor Processing System): The means by which mass emission rates of vapor processing systems are determined is set forth in the Manual of Procedures, Volume IV, ST-4.

8-44-603 ~~Leak Tests And Gas Tight Determinations:~~ The measurement of ~~precursor~~ organic compounds ~~from equipment to determine whether equipment is they are leak free and gas tight as specified in Sections 8-44-303 and 304 shall be in accordance with EPA Reference Method 21 (40 CFR 60, Appendix A) the provisions contained in EPA reference method 21.~~

8-44-604 Reid Vapor Pressure Determination: Measurements of Reid vapor pressure pursuant to Sections 8-44-217, 501 and 503 shall be made in accordance with the Manual of Procedures, Volume III, Method 13.

8-44-605 Organic Concentration in Cargo Tanks: Measurements of the organic concentration in a cargo tank pursuant to Section 8-44-301 shall be made in accordance with EPA Reference Method 21 (40 CFR 60, Appendix A). When using Method 21, the probe inlet for the monitoring instrument shall be placed at least 2 feet inside the cargo tank.