RULE 413 **Organic Liquid Loading** - Adopted 4/18/72, Amended 8/27/84, 8/22/89, 4/11/91, 9/19/91, 4/6/95, 3/7/96

I. Applicability

This Rule shall apply to organic liquid loading facilities as defined in this Rule loading 4,000 gallons, or more in any one day. This Rule shall not apply to gasoline bulk plants subject to requirements of Rule 412.

II. Definitions

A. Class I Organic Liquid Loading Facility: any facility loading 20,000 gallons, or more on any one day of organic liquids with a true vapor pressure of 1.5 psia, or greater into tank trucks, trailers, or railroad tank cars.

B. Class II Organic Liquid Loading Facility: any facility loading 4,000 gallons, or more but less than 20,000 gallons on any one day of organic liquids with a true vapor pressure of 1.5 psia, or greater into tank trucks, trailers, or railroad tank cars.

C. Excess Organic Liquid Drainage: more than ten milliliters liquid drainage. Such liquid drainage for disconnect operations shall be determined by computing average drainage from three consecutive disconnects at any one permit unit.

D. Leak: dripping of liquid organic compounds at a rate of more than three drops per minute; or detection of organic compounds in excess of 10,000 ppm as methane when measured with a portable hydrocarbon detection instrument calibrated with methane and conducted in accordance with U.S. EPA Method 21.

E. Organic Liquid: any liquid containing VOC's and having a true vapor pressure (TVP) greater than 1.5 psia at actual loading conditions.

F. Organic Liquid Loading Facility: any aggregate, or combination of organic liquid loading and vapor control equipment, from the connection at the inlet of the organic liquid pump to, and including, the hose end connector at the portable delivery tanks and the discharge of the vapor control device(s).

G. Portable Hydrocarbon Detection Instrument: hydrocarbon analyzer using flame ionization detection or thermal conductivity and satisfying U.S. EPA Method 21, 40 CFR, Part 60. Output of any such instrument shall be equivalent to calibration on methane and a sampling rate of one liter per minute.

H. Volatile Organic Compound (VOC): any compound containing at least one atom of carbon except for compounds exempted by Rule 102, Subsection L.

III. **Exemptions**

A. Requirements of Subsection IV. of this Rule shall not apply to organic liquid loading facilities used exclusively for loading of less than 4,000 gallons of organic liquids in any one day.

B. Requirements of this Rule shall not apply to loading facilities subject to requirements of Rule 412 - Gasoline Transfer into Stationary Storage Containers, Gasoline Delivery Vessels, and Gasoline Bulk Plants.

C. Requirements of this Rule shall not apply to loading of organic liquids with true vapors pressure less than 1.5 psia at actual loading temperature.

IV. **Requirements**

A. Emission Limits

Loading Facility	VOC Emission Limit
Class I	0.08 pounds per 1,000 gallons loaded
Class II	95% combined collection/control efficiency

B. Equipment

1. Class I facilities shall be equipped with provisions for bottom loading, vapor collection, and vapor disposal.

2. Class II facilities shall be equipped with provisions for vapor collection, and vapor disposal.

3. Any vapor collection and control system serving a gasoline tank truck shall operate with a pressure in the delivery tank being loaded of not more than 18 inches water column.

4. All delivery tanks previously containing organic liquids with a true vapor pressure greater than 1.5 psia at loading conditions shall be filled only at loading facilities conforming to Subsections IV.A. and B.

5. Loading and vapor collection equipment shall be designed, installed, maintained and operated without leaks or excess organic liquid drainage at disconnections.

6. Construction of any new top loading facility or reconstruction, as defined in Rule 422 - NSPS, or expansion of any existing top loading facility with top loading equipment

shall not be allowed after May 6, 1991.

7. Notwithstanding Subsection IV.B.1., above, organic liquid loading facilities exclusively handling liquified petroleum gas need not utilize bottom loading, provided the operator complies with emission limit of Subsection IV.A. and provisions of Subsection IV.B.5.

V. **Administrative Requirements**

A. Record Keeping

1. Facilities exempted by Section III. of this Rule shall maintain accurate daily records of liquid throughput, loading temperature and liquid true vapor pressure and make such records readily available to District staff upon request. All records shall be maintained at the facility or a minimum of two years.

2. Class I and Class II facilities shall maintain daily records of liquid throughput, loading temperature, and liquid true vapor pressure and make such records readily available to District staff upon request. All records shall be maintained at the facility for a minimum of two years.

B. Test Methods

1. Analysis of exempt halogenated exempt compounds shall be by CARB Method 432.

2. Compliance with Subsections IV.A. and IV.B. shall be determined, for initial compliance determination and when inspection reveals conditions indicative of performance less effective than during previous compliance determination(s), using 40 CFR 60.503 "Test Methods and Procedures" and U.S. EPA Reference Methods 2A, 2B, 25A and 25B and CARB Method 432, or CARB Method 2-4.

3. True vapor pressure shall be measured using Reid vapor pressure ASTM Method No. D-323-82 modified by maintaining hot water bath at storage temperature. Where storage temperature is above 100 F, true vapor pressure may be determined by Reid Vapor pressure at 100 F and California Air Resources Board-approved calculations. Organic liquid listed in Table I shall be deemed in compliance with appropriate vapor pressure limits for material, provided actual storage temperature does not exceed the corresponding maximum temperature listed.

TABLE I

MAXIMUM STORAGE TEMPERATURES FOR ORGANIC LIQUIDS FOR PURPOSES OF SUBSECTION IV.B.3.

ORGANIC LIQUID	Gravity °API	Initial Boiling Point°F	Vapor Pressure Limit Maximum Storage Temp(F) 0.5 (psia)	1.5 (psia)
Middle Distillates				
Kerosene	42.5	350	195	250
Diesel	36.4	372	230	290
Gas Oil	26.2	390	249	310
Stove Oil	23	421	275	340
Jet Fuels				
JP-1	43.1	330	165	230
JP-3	54.7	110	----	25
JP-4	51.5	150	20	68
JP-5	39.6	355	205	260
JP-7	44-50	360	205	260
JP-8	37-51	---	167	222
Fuel Oils				
No. 1	42.5	350	195	250
No. 2	36.4	372	230	290
No. 3	26.2	390	249	310
No. 4	23	421	275	340
No. 5	19.9	560	380	465
Residual	19.27	----	405	----
No. 6	16.2	625	450	----
Asphalts				
60 - 100 pen.	----	----	490	550
120 - 150 pen.	----	----	450	500
200 - 300 pen.	----	----	360	420