

CHEMICALS



INTEROFFICE / LAKE CHARLES

TO Winston Calliouet

DATE February 16, 1978

FROM J. E. Wyche

SUBJECT State Regulation on Organic
Loading Facilities

Pursuant to our conversation, attached are pertinent regulations of the Louisiana Air Control Commission (LACC) regarding storage and loading facilities for volatile organic compounds (VOC). VOC is defined earlier in the regulations as any carbon and hydrogen containing compound having a vapor pressure of 1.5 psia or greater under actual flow or storage conditions. Of the compounds of interest to us, this would include methylene chloride, EDC, trichlor, and MC. In the past, these compounds have been exempted by the LACC, but this exemption has been revoked, effective this year. We have three years to reach compliance. Please let me know our present status in regard to pp. 22.5, VOC loading facilities.

/as

Attachment

cc: J. Lafleur

C. A. Burns

W. J. Peard

P. Arnold

A handwritten signature in cursive script that reads 'Jim Wyche'.

SL 090286

*22.2 SCOPE. This section is applicable to any source from which an organic compound is emitted. (except methane)

*22.3 STORAGE OF VOLATILE ORGANIC COMPOUNDS. (Large tanks) No person shall place, store or hold in any new stationary tank, reservoir, or other container of more than 40,000 gallons (151,400 liters) capacity (50,000 gallons (189,300 liters) for existing containers) any volatile organic compounds unless such tank, reservoir or other container is a pressure tank capable of maintaining working pressures sufficient at all times under normal operating conditions to prevent vapor or gas loss to the atmosphere or is designed and equipped with one of the following vapor loss control devices:

- (a) A floating roof, consisting of a pontoon type, double deck type roof or internal floating cover, which will rest on the surface of the liquid contents and can be equipped with a closure seal or seals to close the space between the roof edge and tank wall. This control equipment shall not be permitted if the organic compounds have a vapor pressure of 11.0 pounds per square inch absolute or greater under actual storage conditions. All tank gauging and sampling devices shall be gas-tight except when gauging or sampling is taking place.
- (b) A vapor recovery system, consisting of a vapor gathering system capable of collecting the organic compound vapors and gases and a vapor disposal system capable of processing such organic vapors and gases so as to prevent their emission to the atmosphere and with all tank gauging and sampling devices gas-tight except when gauging or sampling is taking place.
- (c) Other equivalent equipment or means as may be approved by the Technical Secretary.

This section does not apply to storage tanks containing 420,000 gallons (1,589,900 liters) or less of crude oil or condensate.

*22.4 STORAGE OF VOLATILE ORGANIC COMPOUNDS (Small tanks). No person shall place, store or hold in any stationary tank, reservoir, or other container of more than 250 gallons (950 liters) capacity any volatile organic compounds unless the container is equipped with a submerged fill pipe, a vapor recovery system or other equivalent equipment or means as may be approved by the Technical Secretary. This section does not apply to storage of crude or condensate.

*22.5 VOLATILE ORGANIC COMPOUNDS (loading Facilities). Any loading facility for volatile organic compounds servicing tanks, trucks or trailers having a capacity in excess of 200 gallons (760 liters) and having 20,000 gallons (75,700 liters) or more through put per day, ~~(40,000 gallons (151,400 liters) or more for existing facilities) averaged over any 30-day period~~ must be equipped with a vapor collection and disposal system or equivalent means thereof, properly installed, in good working order; ~~on installation a loading system which will result in a 95 per cent submerged fill either with a submerged fill pipe or by loading from the bottom. Provisions~~

~~must be made to prevent spills during the attachment and disconnection of filling lines or arms.~~ This section does not apply to crude or condensate loading facilities.

→ *22.6 VOLATILE ORGANIC COMPOUNDS WATER SEPARATION. Single or multiple compartment volatile organic compound water separators which receive effluent water containing 200 gallons (760 liters) a day or more of any volatile organic compound from any equipment processing, refining, treating, storing or handling volatile organic compounds shall be equipped with one of the following vapor loss control devices properly installed in good working order and in operation:

- (a) A container having all openings sealed and totally enclosing the liquid contents. All gauging and sampling devices will be gas-tight except when gauging or sampling is taking place.
- (b) A container equipped with a floating roof, consisting of a pontoon type, double deck type roof, or internal floating cover which rest on the surface of the contents and be equipped with a closure seal or seals to close the space between the roof edge and container wall. All gauging and sampling devices will be gas-tight except when gauging or sampling is taking place.
- (c) A container equipped with a vapor disposal system capable of processing such organic vapors and gases so as to prevent their emission to the atmosphere and with all container gauging and sampling devices gas-tight except when gauging or sampling is taking place.
- (d) Other equivalent equipment or means as may be approved by the Technical Secretary.

*22.7 PUMPS, COMPRESSORS, VALVES, ETC. All pumps and compressors handling volatile organic compounds shall be equipped with mechanical seals or other equivalent equipment or means as may be approved by the Technical Secretary.

*22.7.1 HOUSEKEEPING. Best practical housekeeping and maintenance practices must be maintained at the highest possible standards to reduce the quantity of organic compound emissions. Emission of organic compounds must be reduced wherever feasible.

→ *22.8 WASTE GAS DISPOSAL. Any waste gas disposal stream containing organic compounds from any emission source including those emissions from process unit upsets, startups and shutdowns shall be controlled by one of the following methods:

- (a) Non-halogenated Hydrocarbons shall be burned at 1300°F. (704°C) for 0.3 second or greater in a direct-flame afterburner or an equally effective device.
- (b) Halogenated hydrocarbons shall be burned and the products of combustion subsequently controlled. The hydrocarbons shall totally combust and the halogenated products of combustion shall be reduced to a concentration which will not exceed un-

desirable levels (Section 4.73) at or beyond the property line.

- (c) Other methods of control (such as, but not limited to, carbon adsorption, refrigeration, catalytic and/or thermal reaction, secondary steam stripping, recycling or vapor recovery system) may be substituted for burning provided it is acceptable to the Technical Secretary.

Where it can be demonstrated to the Department that the waste gas stream:

1. is not significant (less than 25 TPY) or *deleted*
2. will not support combustion without auxiliary fuel or
3. disposal cannot be practically or safely accomplished by other means without causing economic hardship

the Technical Secretary may waive this requirement.

This section does not apply to safety relief and vapor blowdown systems where control cannot be accomplished because of safety or economic considerations. However, the emissions from these systems shall be reported to the Department as required under Section 17.13. Emergency occurrences shall be reported under Section 17.11.

→ *22.9 ORGANIC SOLVENTS. Any emission source using organic solvents having an emission of organic solvents of more than 3 pounds (1.3 kg) per hour or 15 pounds (6.8 kg) per day shall reduce the emission, where feasible, by incorporating one or more of the following control methods:

- (a) Incineration, provided 90% of the carbon in the organic compounds being incinerated is oxidized to carbon dioxide.
- (b) Carbon adsorption of the organic compounds.
- (c) Any other equivalent means as may be approved by the Technical Secretary.

**22.9.1 PAINT AND COATING OPERATIONS, DRY CLEANING OPERATIONS USING ORGANIC SOLVENTS. Paint and coating operations or Dry cleaning operations using organic solvents which are not considered photochemically reactive shall be considered for exemption from the requirements of Section 22.9 of the Air Control Commission Regulations.

For the purposes of the statement, a photochemically reactive solvent is any solvent with an aggregate of more than 20% of its total volume composed of the chemical compounds classified below or which exceeds any of the following individual percentage composition limitations, referred to the total volume of solvent:

1. A combination of hydrocarbons, alcohols, aldehydes, esters, ethers or ketones having an olefinic or cyclo-olefinic type of unsaturation: 5%: