

Tanks All (A), Temperature Controlled (T), Fixed Roof (F), Oil & Gas (O), H₂S (H) .

(A) VOC Service Tanks are approved to store the liquids on the Approved Product List, Attachment 1.

or

Storage tank throughput and service shall be limited to the following:

Tank	Service	Fill/Withdrawal rate (gallons/hour)	Rolling 12 Month Throughput (gallons)
		<i>the last 2 columns are</i>	<i>optional</i>

or

Tank (*number*) service is limited to storing the following liquids: (*list of compounds*).

(A) BACT/monitor Storage tanks are subject to the following requirements: The control requirements specified in parts A-C of this condition shall not apply (1) where the VOC has an aggregate partial pressure of less than 0.50 psia at the maximum feed temperature or 95 degrees F, whichever is greater, or (2) to storage tanks smaller than 25,000 gallons. (*parts A through C are not necessary if you are only authorizing fixed roof tanks*)

A. The tank emissions must be controlled as specified in one of the paragraphs below:

- (1) An internal floating deck or “roof” shall be installed. A domed external floating roof tank is equivalent to an internal floating roof tank. The floating roof shall be equipped with one of the following closure devices between the wall of the storage vessel and the edge of the floating roof: (1) a liquid-mounted seal, (2) two continuous seals mounted one above the other, or (3) a mechanical shoe seal.
- (2) An open-top tank shall contain a floating roof (external floating roof tank) which uses double seal or secondary seal technology provided the primary seal consists of..... either a mechanical shoe seal or a liquid-mounted seal and the secondary seal is rim-mounted. A weathershield is not approvable as a secondary seal unless specifically reviewed and determined to be vapor-tight.
- (3) (if applicable) All vents from Tanks (*list tank EPNs*) shall be routed to (*list control device*).

B. For any tank equipped with a floating roof, the permit holder shall perform the visual inspections and any seal gap measurements specified in Title 40 Code of Federal Regulations § 60.113b (40 CFR § 60.113b) Testing and Procedures (as amended at 54 FR 32973, August 11, 1989) to verify fitting and seal integrity.

Records shall be maintained of the dates inspection was performed, any measurements made, results of inspections and measurements made (including raw data), and actions taken to correct any deficiencies noted.

- C. The floating roof design shall incorporate sufficient flotation to conform to the requirements of API Code 650 dated November 1, 1998 except that an internal floating cover need not be designed to meet rainfall support requirements and the materials of construction may be steel or other materials.
- D. Except for labels, logos, etc. not to exceed 15 percent of the tank total surface area, uninsulated tank exterior surfaces exposed to the sun shall be white or unpainted aluminum. Storage tanks must be equipped with permanent submerged fill pipes.
- E. The permit holder shall maintain an emissions record which includes calculated emissions of VOC from all storage tanks during the previous calendar month and the past consecutive 12 month period. The record shall include tank identification number, control method used, tank capacity in gallons, name of the material stored, VOC molecular weight, VOC monthly average temperature in degrees Fahrenheit, VOC vapor pressure at the monthly average material temperature in psia, VOC throughput for the previous month and year-to-date. Records of VOC monthly average temperature are not required to be kept for unheated tanks which receive liquids that are at or below ambient temperatures.

Emissions from tanks shall be calculated using the methods that were used to determine the MAERT limits in the permit application (*or amendment application, PI-1 dated*). Sample calculations from the application shall be attached to a copy of this permit at the plant site.

(or, if throughput limits are specified in the special conditions of this permit,)

The permit holder shall maintain a record of tank throughput for the previous month and the past consecutive 12 month period for each tank.

(T) Temperature

The holder of this permit shall maintain the temperature of the liquid in Tank (*identifier*) less than (*temperature*) to maintain a vapor pressure of less than (*pressure*) psia at actual storage conditions. The tank temperature shall be continuously monitored and the temperature shall be recorded daily and during tank filling.

The temperature monitor shall be calibrated on an annual basis to meet an accuracy specification of ± 0.75 percent of the temperature being measured expressed in degrees Celsius or ± 2.5 degrees C. Up to 5 percent invalid monitoring data is acceptable on a rolling 12 month basis provided it is only generated when the monitor is broken down, out-of-control (producing inaccurate data); being repaired, having maintenance performed, or being calibrated. The data availability shall be calculated as the total tank operating hours for which quality assured data was recorded divided by the total tank hours in service. Invalid data generated due to other reasons is not allowed. The measurements missed shall be estimated using engineering judgement and the methods used recorded.

- (o) Vapor Recovery Tank (*numbers*) must be served by a vapor recovery system which discharges into the gas sales line.
- (h) H₂S Concentration The dissolved hydrogen sulfide in the crude oil shall not exceed (*concentration*) ppmw in any sample.
- (h) H₂S Sampling The permit holder shall determine the dissolved hydrogen sulfide concentration of each crude oil stock to be stored in Tanks (*numbers*). The sampling method and analysis used must be approved by the TCEQ. (*The applicant may propose an alternative method to demonstrate compliance in lieu of testing*)