VOC-CONTAINING PRODUCT STORAGE TANK INFORMATION | **FORM AQ205 INSTRUCTIONS**

LRAPA permits storage tanks that have significant VOC emissions. In general, tanks with at least 39,000 gallons of holding capacity are likely to be required to have a permit, although the owner/operator should discuss this with his/her permit writer to determine whether or not his/her tank(s) have sufficient emissions to warrant permitting. The forms should also be used to describe any tanks that are used to support other activities at the facility (i.e., oil storage tanks for boilers).

This form is designed to collect information about 4 tanks, but if the facility has multiple, *identical* tanks *storing the same material*, the owner/operator may complete this form *once* for all of them and simply provide the ID numbers <u>for each tank</u> at the top of the column. If a single tank is used to store more than one type of material, the first column can be used to capture the tank information and multiple columns can be used to capture the material information without repeating the tank information. Review the *Guidelines on Completing Form Series AQ200, Device/Process Forms* before proceeding.

Assign an identification number to the tank(s) and enter them at the top of the columns. Use this ID number to reference the tank(s) elsewhere in the application materials (e.g., on the process flow diagram, on the emissions data forms, etc.). The ID number may be anything the owner/operator wishes.

1. Indicate whether this is an existing tank or one that will be installed during the permit term.

2. Enter the name of the manufacturer.

3. Enter the date that construction/installation of this tank commenced. This refers to the date on which a financial commitment was made to undertake the construction.

4. Enter the date on which this tank was fully installed or construction was completed.

5. Enter the rated capacity of the tank, in gallons.

6. Enter the height of the tank, in feet.

7. Enter the diameter of the tank, in feet.

8. Indicate (yes or no) whether the tank has a submerged fill pipe.

9. Indicate the type of tank. Select from the following.

   - external floating roof
   - fixed roof with internal floating roof
   - variable vapor space
   - pressurized
   - open top
   - fixed roof
   - geodesic dome
   - other (please specify)

10. Indicate (yes or no) whether the tank is an underground storage tank. If the answer is "yes," indicate which of the following apply:

    - Single point fill tube and poppeted vapor return
    - Separate fill tube and vapor return points inside on well
    - Parker Hannifin single point fill tube
    - Separate fill tube and vapor return points not inside on well

11. Indicate (yes or no) whether the tank is an above ground storage tank. If the answer is "yes," provide the following information:

    a. Pipe material
    b. Pipe size
    c. Indicate (yes or no) whether the piping continuously drains downward.
    d. If the answer is "no," describe the condensate collection tank.
    e. Isolation valves installed in piping (yes/no)

12. Pressure/vacuum relief valves.

    a. Enter the pressure settings of the vents in pounds per square inch absolute.
    b. Enter the months in which the relief valves are removed to prevent freezing.

13. Indicate (yes or no) whether the tank has a vent intended to conserve pressure. If the answer is "yes," specify at what pressure the vent is set, in pounds per square inch absolute.

14. Fixed roof tanks.

    a. Enter the color of the roof.
    b. Enter the color of the shell.
    c. Enter the height (in feet) of the vapor space inside the tank, on an estimated annual average.
    d. Indicate the shell condition of the tank and whether it is lined with gunite:

        - light rust
        - dense rust
        - gunite lined
        - other (specify)

15. Floating roof tanks.

    a. Enter the type of construction of the tank (e.g., welded, riveted).
    b. Enter the condition of the tank and whether it is lined with gunite:

        - light rust
        - dense rust
        - gunite lined
        - other (specify)

    c. Enter the color of the tank.
    d. Enter the type of deck on the tank.

        - welded
        - bolted

16. For tanks with external floating roofs, indicate how the roof is sealed:

        - shoe mounted primary
        - liquid primary with weather shield
        - vapor primary, rim secondary
        - liquid mounted primary
        - vapor primary with weather shield

- shoe primary, rim secondary
- vapor mounted primary
- shoe primary and secondary
- liquid primary, rim secondary
- other (specify)

17. For tanks with internal floating roofs:

    a. Enter how the roof is sealed.

    - liquid mounted primary
    - liquid primary, rim secondary
    - vapor mounted primary
    - vapor primary, rim secondary

    b. Enter the number of columns.
    c. Enter the effective column diameter, in feet.
    d. Enter the total length of the deck seam, in feet.
    e. Indicate the number of *each* type of deck fitting the tank has.

18. Enter the maximum rate at which the tank can be filled, in gallons per hour.

19. Describe how submerged fill at the delivery truck out-loading is achieved.

20. Indicate (yes or no) whether the tank has a vapor recovery system. If yes, this is a control device that should be described under question 8 on Form AQ301, Control Device Description. The owner/operator should describe the vapor recovery system and assign it an identification number on that form.

For guidance on completing the information requested below, refer to AP-42 Section 12.

For each material stored, provide the following information.

21. The name and type of material stored (e.g., gasoline, etc.).
22. The anticipated normal annual throughput of this material, in gallons per year.
23. The normal number of turnovers per year.
24. The density of the material stored, in pounds per gallon.
25. The molecular weight of the material stored.
26. The average storage temperature, in degrees Fahrenheit.
27. The vapor pressure of the material stored, in pounds per square inch absolute, at the average stored temperature and pressure (NTP).

VOC –CONTAINING PRODUCT STORAGE TANK INFORMATION

FORM AQ205 ANSWER SHEET

Facility Name: _____ Permit Number: _____

Tank Information:

		Tank Identification Number			
1.	Existing or future?				
2.	Manufacturer				
3.	Date construction commenced (month/year)				
4.	Date installed (month/year)				
5.	Rated capacity (gallons)				
6.	Height (feet)				
7.	Diameter (feet)				
8.	Submerged fill pipe? (yes or no)				
9.	Type of tank (see instructions)				
10.	Underground? (yes or no)				
	Underground tank fill type (see instructions)				
11.	Above ground? (yes or no)				
a.	Pipe material				
b.	Pipe size				
c.	Piping continuously drains downward? (yes or no)				
d.	Description of condensate collection tank.				
e.	Isolation valves? (yes or no)				
12.	Pressure/vacuum relief valves				
a.	vent pressure settings (psia)				
b.	months				
13.	Pressure conservation vent? (yes or no) If yes, enter psia.				
14.	Fixed roof tank? (yes or no)				
a.	roof color				

		Tank Identification Number			
b.	shell color				
c.	vapor space height (feet)				
d.	shell condition				
15.	Floating roof tank? (yes or no)				
a.	type of construction				
b.	condition				
c.	tank color				
d.	deck type				
16.	External floating roof tank seal type				
17.	Internal floating roof tanks				
a.	seal type				
b.	number of columns				
c.	effective column diameter (feet)				
d.	total deck seam length (feet)				
e.i	deck fitting types – access hatch				
	(1) bolted cover, gasketed				
	(2) unbolted cover, gasketed				
	(3) unbolted cover, ungasketed				
e.ii	deck fitting types – automatic gauge float well				
	(1) bolted cover, gasketed				
	(2) unbolted cover, gasketed				
	(3) unbolted cover, ungasketed				
e.iii	deck fitting types – column well				
	(1) built-up column, sliding cover, gasketed				

		Tank Identification Number			
	(2) built up column, sliding cover, ungasketed				
	(3) pipe column, flexible fabric sleeve seal				
	(4) pipe column, sliding cover, gasketed				
	(5) pipe column, sliding cover, ungasketed				
e.iv	deck fitting types – ladder well				
	(1) sliding cover, gasketed				
	(2) sliding cover, ungasketed				
e.v	deck fitting types – sample well or pipe				
	(1) slotted pipe, sliding cover, gasket				
	(2) slotted pipe, sliding cover, ungasketed				
	(3) sample well, slit fabric seal, 10% open area				
	(4) stub drain, 1-inch diameter				
e.vi	deck fitting types – roof leg or hanger well				
	(1) adjustable				
	(2) fix				
e.vii	deck fitting types – vacuum breaker				
	(1) weighted mechanical actuation, gasketed				
	(2) weighted mechanical actuation, ungasketed				
18.	Maximum liquid loading rate (gallons/hour)				
19.	Description of submerged fill out-loading				
20.	Vapor recovery system? (yes or no)				
Material Stored:					
21.	Name/type of material stored in the tank				
22.	Maximum projected throughput (gallons/year)				
23.	Maximum projected turnovers per year				

		Tank Identification Number			
24.	Density (pounds/gallon)				
25.	Molecular weight				
26.	Average storage temperature (°F)				
27.	Vapor pressure (psia)				