

## EMISSIONS ACTIVITY CATEGORY FORM STORAGE TANK

*This form is to be completed for each storage tank for which a permit is required. State/Federal regulations which may apply to storage tanks are listed in the instructions. Note that there may be other regulations which apply to this emissions unit which are not included in this list.*

1. Reason this form is being submitted (Check one)
  - New Permit       Renewal or Modification of Air Permit Number(s) (e.g. T001) \_\_\_\_\_
  
2. Type of tank:  Fixed roof tank       Variable vapor space tank       Pressure tank  
 External floating roof tank       Internal floating roof tank
  
3. Location of tank:       Indoors       Outdoors       Underground
  
4. a) Tank capacity: \_\_\_\_\_ 6,000 \_\_\_\_\_ gallons or \_\_\_\_\_ barrels  
 If capacity is provided in barrels, enter the number of gallons per barrel: \_\_\_\_\_  
 b) Working volume, if different from tank capacity: \_\_\_\_\_ gallons or \_\_\_\_\_ barrels
  
5. Shape and dimensions:
  - Cylindrical       Spherical       Other, specify \_\_\_\_\_
  - Horizontal tanks:  
 Tank shell length: \_\_\_\_\_ ft.  
 Tank shell diameter or width \_\_\_\_\_ ft.
  - Vertical tanks:  
 Tank shell height: \_\_\_\_\_ ft.  
 Tank shell diameter or width: \_\_\_\_\_ ft.
  
6. Tank shell material:  Steel       Aluminum       Other, specify \_\_\_\_\_
  
7. If this tank is located outdoors and above ground, provide the paint color of the tank's shell and roof and indicate the condition of the paint.
 

Shell:

 Aluminum (specular)       Gray (dark)       White       Red (primer)  
 Aluminum (diffuse)       Gray (light)       Other, specify \_\_\_\_\_
 

Roof:

 Aluminum (specular)       Gray (dark)       White       Red (primer)

Aluminum (diffuse)     Gray (light)     Other, specify \_\_\_\_\_  
Condition of paint:     Good     Poor

8. If this tank is a variable vapor space tank or is interconnected to a variable vapor space tank, complete the following:

- a) Capacity of vapor expansion system: \_\_\_\_\_ gallons or \_\_\_\_\_ barrels
- b) Identify all tanks and other vapor sources interconnected to the vapor expansion system:  
\_\_\_\_\_

9. If this tank is subject to the following federal rules, complete the following:

New Source Performance Standards under 40 CFR 60, Subpart Ka, "Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984"

- a) Date of initial fill with petroleum liquid \_\_\_\_\_
- b) Was tank out of service for a period of a year or more?     Yes     No  
If yes, identify the date of subsequent refilling with petroleum liquid after the most recent out-of-service period of a year or more. \_\_\_\_\_

Maximum Achievable Control Technology (MACT) Standards under 40 CFR 63, Subpart G (HON Tanks)

- a) This tank is defined as a:     Group 1 storage vessel     Group 2 storage vessel
- b) At the storage temperature, maximum true vapor pressure of total HAPs: \_\_\_\_\_

10. Supplemental data, check all that apply:

- Tank was converted from an external floating roof tank or a fixed roof tank to an internal floating roof tank; provide type and date of conversion: \_\_\_\_\_
- Tank is used to store produced crude oil or condensate prior to custody transfer.
- Tank is insulated; describe: \_\_\_\_\_
- Tank is heated and indicate temperature (in degrees Fahrenheit): \_\_\_\_\_

11. Material stored \_\_\_ Acids \_\_\_\_\_ Trade Name \_\_\_\_\_

Density: \_\_\_ 9 to 15 \_\_\_\_\_ lbs/gal or \_\_\_\_\_ °API    Producer \_\_\_\_\_

12. Temperature of stored material: Average \_\_\_\_\_ °F and Maximum \_\_\_\_\_ °F

13. Vapor pressure of stored material:

- a) Actual vapor pressure: \_\_\_\_\_ psia at average storage temperature

\_\_\_\_\_psia at maximum storage temperature

b) Reid vapor pressure, in psia:  
 Average \_\_\_\_\_  
 Minimum \_\_\_\_\_  
 Maximum \_\_\_\_\_

c) If material stored is a gas or liquified gas, provide the pressure at which it is stored:  
 \_\_\_\_\_psi gauge at \_\_\_\_\_°F

14. The vapor molecular weight: \_\_\_\_\_lbs/lb-mole

15. If the material is a liquid other than gasoline, fuel oil, kerosene, crude oil, lubricant or other petroleum liquid, answer the questions below:

Is it a photochemically reactive material?  Yes  No

16. Is the material a hazardous waste?  Yes  No  
 If yes, identify type (EPA hazardous waste number) \_\_\_\_\_

17. Type of filling:  Splash  Submerged  Other, specify \_\_\_\_\_

18. Indicate the year (or 12-month period) for which throughput is provided in items 19 and 20: TBD\_\_\_\_\_

19. The maximum daily throughput of material stored: 250 gallons or \_\_\_\_\_ barrels.

20. Maximum annual throughput of material stored: 90,000 gallons or \_\_\_\_\_ barrels.

21. Identify the control equipment associated with this tank.

a) Type of vapor control system \_\_\_\_\_

b) Date tank was equipped with or vented to vapor control system (month/year) \_\_\_\_\_

22. Complete the table below for any pressure or vacuum relief vent valve.

Type of Vent Valve	Pressure Setting	Vacuum Setting	If pressure relief is discharged to a vapor control system, identify the vapor control system

**If this is a Fixed Roof, Variable Vapor Space or Pressure Tank, complete items 23 through 27:**

23. If the tank is vertical, what type of roof does it have?

Cone roof Height: \_\_\_\_\_ft  Dome roof Height: \_\_\_\_\_ft

24. The average height of the liquid material stored within the tank during the year: \_\_\_\_\_ft.

25. The maximum height of the liquid material stored within the tank during the year: \_\_\_\_\_ft.

26. The average liquid surface temperature: \_\_\_\_\_ °F

27. Is this tank bolted or riveted construction?  Yes  No

If this tank is an **External Floating Roof Tank**, complete items 28 through 34:

28. Is the external floating roof domed?  Yes  No

29. Type of floating roof:  Double Deck  Pontoon  Other, specify \_\_\_\_\_

30. Type of shell construction:  Welded  Riveted or bolted

31. Are all openings in the external floating roof, except automatic bleeder vents, rim space vents, leg sleeves, main roof drain, emergency roof drains and slotted gauging/sampling wells, equipped with both a cover, seal or lid without visible gaps and a projection into the tank below the liquid surface?

Yes  No

If no, explain: \_\_\_\_\_

32. Is there a slotted gauging/sampling well?

Yes  No

If yes, is it equipped with an object which floats on the liquid surface within the well and which covers at least 90 percent of the area of the well opening?

Yes  No

33. On the blank lines to the left of the various types of roof fittings shown below, indicate the number, if any, of each fitting.

Access hatch (24-inch diameter well)

\_\_\_\_\_ Bolted cover, gasketed

\_\_\_\_\_ Unbolted cover, ungasketed

\_\_\_\_\_ Unbolted cover, gasketed

Vacuum breaker (10-inch diameter well)

\_\_\_\_\_ Weighted mechanical actuation, gasketed

\_\_\_\_\_ Weighted mechanical actuation, ungasketed

Unslotted guide-pole/sample well (8-inch diameter unslotted pole, 21-inch diameter well)

\_\_\_\_\_ Ungasketed sliding cover  With sleeve

\_\_\_\_\_ Gasketed sliding cover  With sleeve  With wiper

Slotted guide-pole/sample well (8-inch diameter unslotted pole, 21-inch diameter well)

\_\_\_\_\_ Ungasketed sliding cover, without float \_\_\_\_\_ Gasketed sliding cover, without float

\_\_\_\_\_ Gasketed sliding cover, with float

Gauge-float well (20-inch diameter)

\_\_\_\_\_ Unbolted cover, ungasketed

\_\_\_\_\_ Unbolted cover, gasketed

\_\_\_\_\_ Bolted cover, gasketed

Gauge-hatch/sample well (8-inch diameter)

\_\_\_\_\_ Weighted mechanical actuation, gasketed

\_\_\_\_\_ Weighted mechanical actuation, ungasketed

Roof leg (3-inch diameter)

- \_\_\_\_\_ Adjustable, pontoon area  Gasketed  Ungasketed  Sock
- \_\_\_\_\_ Adjustable, center area  Gasketed  Ungasketed  Sock
- \_\_\_\_\_ Adjustable, double-deck roofs
- \_\_\_\_\_ Fixed

Roof drain (3-inch diameter)

- \_\_\_\_\_ Open
- \_\_\_\_\_ 90% closed

Roof leg (2-1/2-inch diameter)

- \_\_\_\_\_ Adjustable, pontoon area
- \_\_\_\_\_ Adjustable, center area
- \_\_\_\_\_ Adjustable, double-deck roofs
- \_\_\_\_\_ Fixed

Rim vent (6-inch diameter)

- \_\_\_\_\_ Weighted mechanical actuation, gasketed
- \_\_\_\_\_ Weighted mechanical actuation, ungasketed

34. The average wind speed at the tank site: \_\_\_\_\_ mph.

**If this tank is an Internal Floating Roof Tank, complete items 35 through 41:**

35. Type of floating decks:

- Contact deck  Noncontact deck

36. Type of roof above floating decks:  Column-supported  Self-supporting

37. If roof is column-supported, identify the type of column construction:

- 9-inch by 7-inch built-up columns  Other, specify \_\_\_\_\_
- 8-inch diameter pipe columns

38. Floating deck seam construction:

- Welded  Bolted  Other, specify \_\_\_\_\_

39. If deck seams are bolted, complete a) or b):

- a)  Continuous sheet construction; specify width of sheets (e.g., 5 ft, 6 ft, or 7 ft): \_\_\_\_\_
- Panel construction; specify size of panels (e.g., 5 ft x 7.5 ft, or 5 ft x 12 ft): \_\_\_\_\_
- b) Total length of bolted deck seams: \_\_\_\_\_ ft
- Total area of floating deck: \_\_\_\_\_ sq ft

40. On the blank lines to the left of the various types of floating deck fittings shown below, indicate the number, if any, of each fitting.

Access hatch (usually one)

- \_\_\_\_\_ Bolted cover, gasketed
- \_\_\_\_\_ Unbolted cover, ungasketed
- \_\_\_\_\_ Unbolted cover, gasketed

Automatic gauge float well (usually one)

- \_\_\_\_\_ Bolted cover, gasketed
- \_\_\_\_\_ Unbolted cover, ungasketed
- \_\_\_\_\_ Unbolted cover, gasketed

Deck supports (roof legs or hanger well)

\_\_\_\_\_ Adjustable

\_\_\_\_\_ Fixed

\_\_\_\_\_ Stub drains (1-inch diameter; not used on welded contact deck)

Ladder well (usually one)

\_\_\_\_\_ Sliding cover, gasketed

\_\_\_\_\_ Sliding cover, ungasketed

Column wells

\_\_\_\_\_ Pipe column, flexible fabric sleeve seal

\_\_\_\_\_ Pipe column, gasketed sliding cover

\_\_\_\_\_ Pipe column, ungasketed sliding cover

\_\_\_\_\_ Built-up column, gasketed sliding cover

\_\_\_\_\_ Built-up column, ungasketed sliding cover

Sample pipe or well (usually one)

\_\_\_\_\_ Slotted pipe, gasketed sliding cover

\_\_\_\_\_ Slotted pipe, ungasketed sliding cover

\_\_\_\_\_ Sample well, slit fabric seal (10% open area)

Vacuum breaker (10-inch diameter)

\_\_\_\_\_ Weighted mechanical actuation, gasketed

\_\_\_\_\_ Weighted mechanical actuation, ungasketed

41. Are all openings on the floating deck, except stub drains, equipped with a cover, seal or lid which is to be in a closed position at all times except when in actual use for tank gauging or sampling?

Yes  No

If no, explain: \_\_\_\_\_

**If this tank is an Internal or External Floating Roof Tank, complete items 42 through 47:**

42. Type of seal between floating roof and tank well:

Single seal (primary seal only)

Single seal with weather shield  
(primary seal with weather shield)

Dual seals (primary seal with secondary shield mounted above it)

43. Primary seal information:

Manufacturer \_\_\_\_\_

Make or model \_\_\_\_\_

Date installed \_\_\_\_\_  
(month/year)

Type:  Liquid-mounted, liquid-filled  
 Liquid-mounted, resilient foam-filled  
 Vapor-mounted, resilient foam-filled  
 Mechanical shoe (complete item below)  
 Flexible wiper  
 Other, specify \_\_\_\_\_

If the primary seal is a mechanical shoe, complete the following:

Vertical length of shoe \_\_\_\_\_ inches

Vertical length of shoe above stored liquid surface \_\_\_\_\_ inches

44. Secondary seal information:

Manufacturer \_\_\_\_\_ Type:  Rim-mounted, flexible wiper  
Make or model \_\_\_\_\_  Rim-mounted, resilient foam-filled  
Date installed \_\_\_\_\_  Shoe-mounted  
(month/year) \_\_\_\_\_  Weather shield  
 Other, specify \_\_\_\_\_

45. Most recent seal inspection for visible holes, tears or other openings in the seal or fabric:

Seal(s) inspected \_\_\_\_\_  
Date of inspection \_\_\_\_\_  
Inspected by (person and company) \_\_\_\_\_  
Condition of seal(s)  Good condition  
 Needed repair or replacement, specify type and date of corrective action

46. Most recent seal gap measurements:

	<u>Primary Seal</u>	<u>Secondary Seal</u>
Date of measurement	_____	_____
By: (person)	_____	_____
(company)	_____	_____
Width of maximum gap	_____ inch	_____ inch
Total area of gaps	_____ sq in	_____ sq in
	_____ sq in/ft tank diameter	_____ sq in/ft tank diameter

47. Condition of the interior side of the tank shell:

Little or no rust       Dense rust       Gunite-lining