



**Minnesota Pollution  
Control Agency**

520 Lafayette Road North  
St. Paul, MN 55155-4194

**GI-05C-R**

Facility Description: Storage Tanks (TK)  
Supplemental Information for Title V Reissuance  
Air Quality Permit Program

*Doc Type: Permit Application*

**Instructions on Page 3**

**1a)** AQ Facility ID No.: \_\_\_\_\_ **1b)** AQ File No.: \_\_\_\_\_

**2)** Facility Name: \_\_\_\_\_

**To complete this form, you will need the colored sheet(s) labeled *Facility Description: Storage Tanks (TK)*.**

- 3)** Review the information on the colored sheet(s) labeled "Facility Description: Storage Tanks (TK)." Is the information on the form complete and accurate (i.e., is everything listed still in use, and is every piece of equipment in use listed)? If there are blank fields (e.g., missing tank dimensions, missing contents, etc.) for any listed tank, answer "no" to this question and fill in the missing information as directed in Question 4.

- ☐ Yes – The "Facility Description: Storage Tanks (TK)" form is complete and accurate. No changes are necessary. Done with this form. Return this page with your application.
- ☐ No – Go to Question 4.

- 4)** Are there changes to be made that are administrative in nature (e.g., filling in missing information [blank fields] for existing equipment, typographical errors, incorrect construction type, other errors)?

**[Note:** This does not include replacing listed tanks with new equipment. This **may include** checking the "insignificant activity" box if the tank has always been an insignificant activity and was erroneously included on this list.]

- ☐ Yes – Using a red pen, make changes and fill in all missing information on the colored sheet. Go to Question 5.
- ☐ No – Go to Question 5.

- 5)** Are there tanks listed that are no longer in use or have been removed from the facility?

- ☐ Yes – Using a red pen, draw a line on the colored sheet through the equipment that is no longer in use. Indicate the date that it was removed. Go to Question 6.
- ☐ No – Go to Question 6.

- 6)** Are there tanks in use that are not listed (either additional tanks, or tanks that replaced something you crossed out for Question 5)?

- ☐ Yes – Complete one line of the table on the next page for each tank that is not currently listed on the colored sheet. Return this form (pages 1 and 2) and the colored sheet(s) labeled "Facility Description: Storage Tanks (TK)" with your application.
- ☐ No – Done with this form. Return this page and the colored sheet(s) labeled "Facility Description: Storage Tanks (TK)" with your application.

<b>a)</b> Tank ID No.	<b>b)</b> Control Equip ID No.	<b>c)</b> Product(s) Stored	<b>d)</b> Interior Height (ft.)	<b>e)</b> Interior Diameter (ft.)	<b>f)</b> Capacity (1000 gals.)	<b>g)</b> Construc- -tion Type	<b>h)</b> Support Type (floating roof only)	<b>i)</b> Number of Columns (column- supported only)	<b>j)</b> Column Diameter (column- supported only, in ft.)	<b>k)</b> Deck Type (floating roof only)	<b>l)</b> Seal Type (floating roof only)	<b>m)</b> Date Installed or Constructed

## Instructions for Adding Tanks to the List

- a) **Tank ID No.** -- Assign a Tank ID number to each additional tank. Number the tanks at your facility sequentially beginning with the next number after the last one currently listed (e.g. if the last item on the list is 004, begin with 005). Even if the tank replaces another tank that has been removed, assign the next number; do not reuse numbers. This ID number is unique to this tank and must be used consistently throughout the application.
- b) **Control Equipment ID No.** -- If emissions from the tank are directed to a control device (e.g., a condenser, a flare, or a thermal oxidizer), fill in the ID number of that piece of control equipment here. This ID information should be the same as listed on "Facility Description: Control Equipment (CE) and will help track the flow of emissions.
- c) **Product(s) Stored** -- List the material contained in the tank. Include the appropriate Chemical Abstract Service (CAS) number. If the tank contains a mixture, list each individual compound in a separate row (with the same tank number in column 1). After the name of the compound, list the CAS number and the approximate weight fraction of that (or groups of chemicals) contained in the tank. An example follows:

Tank ID No.	Control Equip. No.	Product(s) Stored	Interior Height (ft)
001	001	Benzene (CAS # 71432); 52%	10
001		Toluene (CAS # 108883); 48%	

- d) **Interior Height (ft.)** -- List the interior height of the tank, in feet. For tanks with a cone bottom, fill in the straight-wall height only.
- e) **Interior Diameter (ft.)** -- List the interior diameter of the tank, in feet. For a tank that is not cylindrical, calculate the area of the top of the tank. Then determine the diameter of a circle with an area equal to that of the top of the tank. List that *effective diameter* (in feet) in this column.
- f) **Capacity (1000's of gals.)** -- List the maximum capacity of the tank (in thousands of gallons). The maximum capacity may be calculated by multiplying the height of the tank by the area of the top of the tank. Be sure to convert to thousands of gallons before writing in the capacity. For example, for a 40,000 gallon tank, fill in "40." If you need to convert from cubic feet to gallons, use the factor of 7.481 U.S. gallons in a cubic foot.
- g) **Construction Type** -- Tanks are constructed in many ways. Describe the method used to fasten the seams of the tank itself (not the roof). Fill in the number for the type of construction from the following list:
1. External floating roof, construction not specified
  2. External floating roof with welded tank shell
  3. External floating roof with riveted tank shell
  4. Internal floating roof
  5. Fixed roof
  6. Pressure tank
  7. Variable vapor space
  8. Underground
  9. Other. Attach a description to Form GI-05C on a separate sheet.
- h) **Support Type (floating roof only)** -- If the tank is a floating roof, describe the type of tank support used. Fill in the number for the type of support from the following list:
1. Self-supporting fixed roof with no internal support columns
  2. Column supported roof, construction type not specified
  3. Column supported roof, with 9 by 7 inch built-up columns
  4. Column supported roof, with 8 inch diameter columns
- i) **Number of Columns (floating roof with column-support only)** -- If the tank's roof is supported by columns, list the number of columns. If no information on the number of columns in the tank can be found, refer to AP-42, Table 7.1-11. This table lists representative number of columns for internal floating roof tanks.
- j) **Column Diameter (floating roof with column-support only) in ft.** -- If the tank's roof is supported by columns, list the average effective column diameter of a column supported tank roof. If the diameter is not known, use the following diameters:
- 1.1 feet -- 9 by 7 inch built up columns
  - 0.7 feet -- 8 inch diameter pipe columns
  - 1.0 feet -- if column construction details are not known

**k) Deck Type (floating roof only) --** If the tank has a floating roof, describe the materials and process used to construct the tank deck. Fill in the number for the deck type from the following list:

1. Welded
2. Bolted, 5 feet wide continuous sheet construction
3. Bolted, 6 feet wide continuous sheet construction
4. Bolted, 7 feet wide continuous sheet construction
5. Bolted, 5 by 7.5 feet rectangular panel construction
6. Bolted, 5 by 12 feet rectangular panel construction
7. Bolted, details not specified

**l) Seal Type (floating roof only) --** Describe the seal design used to reduce vapor loss from the floating roof tank. Fill in the number for the seal type from the following list:

1. Mechanical (metallic shoe seal); primary seal only
2. Mechanical (metallic shoe seal); with shoe mounted secondary seal
3. Mechanical (metallic shoe seal); with rim mounted secondary seal
4. Resilient seal (nonmetallic); liquid mounted, primary seal only
5. Resilient seal (nonmetallic); with weather shield
6. Resilient seal (nonmetallic); with rim mounted secondary seal
7. Resilient seal (nonmetallic); vapor mounted, primary seal only
8. Resilient seal (nonmetallic); vapor mounted, with weather shield
9. Resilient seal (nonmetallic); vapor mounted, with rim mounted secondary seal

**m) Date Installed or Constructed --** Provide the date that construction or installation of the tank began.