Maricopa County Air Quality Department
Phone: 602-506-6010
Email: AQMail@maricopa.gov

Maricopa.gov/AQ
CleanAirMakeMore.com

Reporting Emissions from Fuel Storage and Handling

Emissions Inventory Help Sheet

Maricopa County Air Quality Department

January 2023

What to Report

Follow the instructions on this help sheet to report emissions from fuel storage tanks, with capacity of 250 to 15,000 gallons, that are not located at a bulk plant or terminal. Report volatile organic compound (VOC) emissions from gasoline, aviation gas, and naphtha/JP-4 storage tanks. Do not report emissions from diesel fuel or jet A (jet kerosene) storage tanks.

How to Structure the Facility Inventory Tree

There should be one storage tank/silo (TNK) emission unit for each fuel storage tank at the facility. Each tank should have an emissions process attached. The source classification codes (SCC) for fuel storage tanks vary depending on the type of tank and the controls.

What is Stage I Vapor Recovery?

Storage tanks equipped with stage I vapor recovery have two hoses that are connected when fuel is transferred into the tank. The first hose dispenses fuel into the storage tank and the second hose transfers the vapors displaced from the tank into the tanker truck.

Source Classification Codes

Gasoline	SCC
Underground tank with submerged fill and Stage I vapor recovery	40600306
Underground tank with submerged fill and NO Stage I vapor recovery	40600302
Aboveground tank with submerged fill and Stage I vapor recovery	40600706
Aboveground tank with submerged fill and NO Stage I vapor recovery	40600702

For tanks that store aviation gas or naphtha/JP-4, use 40688801 as the SCC.

How to Report Emissions

In the AQD Online Portal, report fuel storage and handling emissions on the emission process attached to the TNK emission unit.

Enter Operational Information

Select the emissions process attached to the TNK emission unit (**PRC048**) and click **Edit Material/Schedule/Seasons**.

1. Enter the **maximum number of hours per day**, **maximum number of days per week**, and the **number of weeks per year** that fuel was in the tank.

2. Enter the **annual hours** of operation for the tanks during the calendar year. If there was gasoline in the tank for the full year, enter 8760.

3. Under "Throughput", enter the total amount of fuel delivered to the storage tank in units of thousand gallons. For example, if 1,234,765 gallons were received, divide by 1,000 and report the throughput as 1,234.765 thousand gallons.

4. Enter the percentage of gasoline that was delivered during each season:

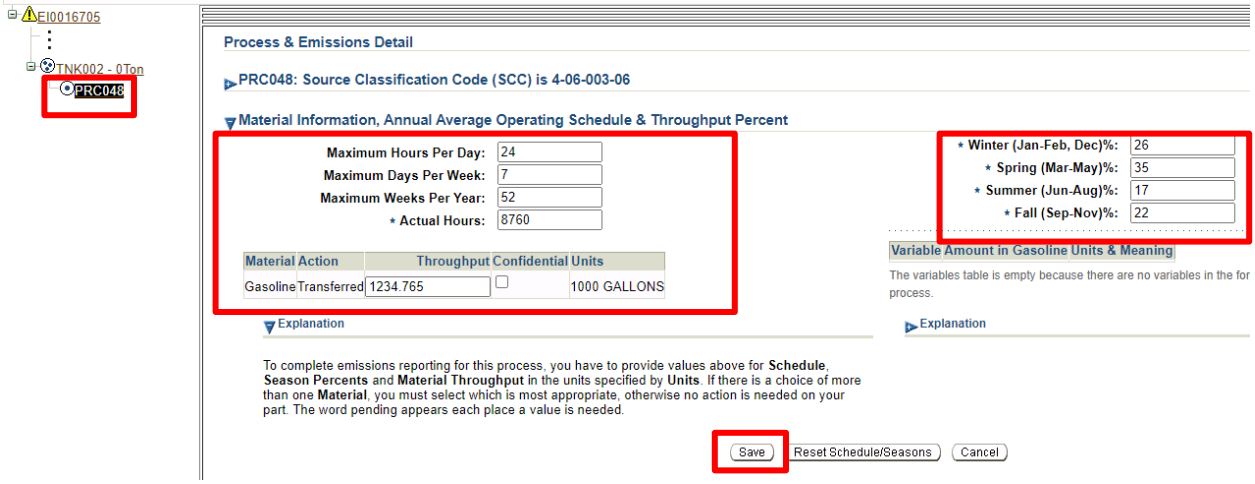
    a. Winter = January, February, and December

    b. Spring = March, April, and May

    c. Summer = June, July, and August

    d. Fall = September, October, and November

5. Click **Save.**



Emission Factors

Storage tank emission factors vary depending on the type of storage tank, the type of fuel stored, how fuel is transferred into the tank, and the use of a stage 1 vapor recovery system. The emission factors on this help sheet are typical emission factors that take into account emissions that occur when fuel is loaded into the tank, emissions from tank breathing and emptying, and spillage that occurs during fuel dispensing.

Gasoline Storage Tank Emission Factors[1, 2]

Gasoline Tank Type	Source Classification Code	VOC Emission Factor (lbs per 1,000 gallons)
Underground tank with submerged fill and Stage I vapor recovery	40600306	2.56
Underground tank with submerged fill and NO Stage I vapor recovery	40600302	9.88
Aboveground tank with submerged fill and Stage I vapor recovery	40600706	6.00
Aboveground tank with submerged fill and NO Stage I vapor recovery	40600702	13.32

Underground Aviation and Naphtha/JP-4 Fuel Tank Emission Factors[3]

Fuel	Vapor Recovery System	Fueling Aircraft from an On-Site Storage Tank via Tank Truck?	VOC Emission Factor (lbs per 1,000 gallons)
Aviation Gasoline	Stage 1	Yes	19
	Stage 1	No	14
	None	Yes	26
	None	No	21
Naphtha / JP-4	None	Yes	8
	None	No	6.5

Report Emissions from Fuel Handling and Storage

Click **Edit Emissions** at the bottom of the screen.

1. Enter Hours Uncontrolled – this should be equal to actual hours for all criteria air pollutants.

2. Report emissions for all pollutants using the method **Throughput-based Factor**. Enter the appropriate VOC emission factor from the emission factor tables in the Uncontrolled Emission Factor column. For all other criteria air pollutants, enter zero (0) in the Uncontrolled Emission Factor column.

3. Click **Save.** The AQD Online Portal will calculate emissions based on the reported throughput and the emissions factor provided.

---

[1] MCAQD. 2022. Emission Calculation Worksheet for Gasoline Dispensing from Underground Storage Tanks.
[2] MCAQD. 2022. Emission Calculation Worksheet for Gasoline Dispensing from Aboveground Storage Tanks.
[3] EPA. 1997. Compilation of Air Pollutant Emission Factors AP-42, Volume I: Transportation and Marketing of Petroleum Liquids, Section 5.2. Emission factors derived from Tables 5.2-5 and 5.2-7 (1/95).

Questions

If you have questions or need assistance with the AQD Online Portal, please contact MCAQD Emissions Inventory staff at 602-506-6790 or EmissionsInventory@maricopa.gov. Please provide a brief explanation of the question or problem you are encountering and include a screenshot if contacting us via email. If you are encountering errors in the portal, include the following information in your message: the date and time when the error occurred, the browser you were using when the error occurred, and the type of device you were using when the error occurred (i.e., computer, tablet, phone, etc.).

Additional Resources

How to create a Shared CROMERR Services (SCS) electronic signature to access the AQD Online Portal: maricopa.gov/DocumentCenter/View/56270

Emissions inventory instructions and other process specific help sheets: maricopa.gov/5628

Instructions for permit applications, compliance reports, asbestos notifications, performance test protocols, and other documents that can be submitted through the AQD Online portal: maricopa.gov/1820