



EIQ Form 2.4 Instructions for Volatile Organic Liquid Loading Worksheet for Form 780-1625

This form is required only if a facility needs to calculate the volatile organic compound, or VOC, emission factor for organic liquid loading into tank trucks, rail cars or barges.

If this worksheet is used to calculate an emission factor, the entire worksheet should be completed. If using an emission factor from another source, only Block 2, Chemical Information, needs to be completed for each petroleum liquid loading operation.

Note: Tables, figures and other attachments are not included with these instructions. Please refer to U.S. Environmental Protection Agency Manual AP-42, Section 5 and 7, or contact the Air Pollution Control Program at 573-751-4817 for additional information.

Complete the Facility Name, Federal Information Processing Standard, or FIPS, County Number, Plant Number and Year of Data.

Loading Information

Unit Number: This number is the unique identification number for each specific petroleum loading station. This identification number must match the unit number in the construction permit and entered on *Form 1.1, Process Flow Diagram; Form 1.2, Summary of Emission Units; and Form 2.0, Emission Unit Information.*

Source Classification Code and Seg. No.: See Form 2.0 instructions.

Annual Throughput of Liquid (1,000 gallons): This figure is the amount of petroleum liquid loaded into tank trucks, rail tank cars or barges expressed in thousands of gallons per year.

Control Device Type: Describe any air pollution control device(s) used to reduce the amount of the VOCs emitted.

Control Efficiency (percent): Enter how effective the control equipment is in reducing the amount of the VOCs released.

Type of Loading: Check the appropriate box to show which type of loading is used at your facility. If other is selected, please specify the type of loading used.

Chemical Information

Bulk Liquid Type: This is the name of a specific petroleum product that is being transferred from where it is stored into a tank truck, rail tank car or barge. If more than one type of petroleum liquid has been loaded into a tank truck, rail tank car or barge during the year from this emission unit, a separate Form 2.0 must be completed to calculate emissions for each type of liquid.

Molecular Weight of Material Loaded: Enter the molecular weight of the material transferred into a tank truck, rail tank car or barge during the year from this emission unit. Table 7.1-2 and Table 7.1-3 from EPA Manual AP-42 provide the molecular weight for some petroleum liquids.

True Vapor Pressure of Bulk Liquid: Enter the true vapor pressure at the storage temperature for the material transferred into tank trucks, rail tank cars or barges. This vapor pressure should be expressed in pounds per square inch absolute, or psia. Figure 7.1 12A and Figure 7.1 13A from EPA Manual AP-42 illustrate how the true vapor pressure for the petroleum liquid may be obtained.

Saturation Factor: This factor represents the expelled vapor's fraction approach to saturation, and it accounts for the variations observed in emission rates from the different loading methods. Table 5.2 1 from EPA Manual AP-42 lists suggested saturation factors.

Temperature of Liquid: This temperature should be entered as the average temperature of liquid in degrees Rankine. Degrees Rankine is equal to degrees Fahrenheit plus 460 degrees Fahrenheit.

Loading Loss Emission Factor

The Loading Loss Emission Factor is the pounds of VOCs that will be emitted per unit of Annual Throughput of the material transferred for this emission unit. The loading loss emission factor for VOCs should be expressed in pounds of VOCs emitted per thousands of gallons of petroleum liquid transferred.

Enter the following on *Form 2.0, Emission Point Information*

- Enter the **Control Efficiency Percentage** into Section 5, Column 4.
- Enter the **Annual Throughput** of the petroleum liquid into Section 3.
- Enter the **Loading Loss Emission Factor** into Section 5, Column 2.

For More Information

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