

5.2 Waste Determination

A more detailed description of the waste determination requirements is described below.

Waste Determination Requirements***Waste Determination Requirements for Tanks***

- An average volatile organic determination proving the average volatile organic concentration is less than 500 ppmw is required if Subpart CC controls are not applied to the tank.
- The maximum organic vapor pressure determination is required if Tank Level 1 controls are used.
- A no-detectable emissions (<500 ppmw) determination according to Method 21 is required for all closed-vent system associated with a tank.

Waste Determination Requirements for Surface Impoundments

- An average volatile organic determination proving the average volatile organic concentration is less than 500 ppmw is required if subpart CC controls are not applied to the surface impoundment.

Waste Determination Requirements for Containers

- An average volatile organic determination proving the average volatile organic concentration is less than 500 ppmw is required if subpart CC controls are not applied to the container.
- A vapor pressure determination for the organic material to determine that the waste is not in light material service is required for all containers with capacities of 0.46 m³ or greater that use Container Level 1 controls.
- A no-detectable emissions (<500 ppmw) determination according to Method 21 is required for all closed-vent system associated with a container.

Waste determinations under Subpart CC standards are required to document compliance with the conditions of exclusions, such as VO concentration of less than 500 ppmw, determining whether a treated hazardous waste meets the requirements of the standard, determining the maximum organic vapor pressure of a hazardous waste in a tank, or determining no detectable organic emissions. Waste determinations related to hazardous waste treatment options in the Subpart CC standards are discussed in Section 5.6, below.

A determination of no detectable organic emissions shall be conducted in accordance with the procedures specified in Method 21. The results of Method 21 shall be compared to a value of 500 ppm by volume for all equipment except for

rotating shaft seals which will be compared to a value of 10,000 ppm by volume.

If an owner or operator does not wish to control VO emissions from a tank, surface impoundment, or container, then the owner or operator must make a determination of the VO concentration of the hazardous waste in the unit to show that it is below 500 ppmw. An owner or operator is not required to determine the VO concentration of the waste if it is placed in a tank, surface impoundment, or container using the required air emission controls.

If a facility owner or operator wishes to take advantage of the less than 500 ppmw exemption in the standard, the VO concentration must be determined for each waste stream which is placed into the waste management unit. The waste determination must take place at the point of waste origination. For hazardous waste generated on site, the point of waste origination is the location where the waste is determined to be a hazardous waste as defined in [40 CFR 261, *Identification and Listing of Hazardous Waste*](#). When hazardous waste is generated off site, the location is the point where the owner or operator accepts delivery or takes possession of the hazardous waste. As discussed in [62 FR 64651](#), under Subpart CC the phrase “accepted at the facility” takes place once the facility owner/operator signs Item 20 of the Uniform Hazardous Waste Manifest ([Appendix to 40 CFR 262](#)). Determination of the VO concentration must be made prior to the first time the hazardous waste is placed in the affected unit. The determination must be made on an annual basis and any time conditions change affecting the VO concentration [[40 CFR 264.1082\(c\)\(1\)](#) and [265.1083\(c\)\(1\)](#)].

Volatility is based on a compound’s tendency to change from a liquid to a vapor. The VO concentration of a hazardous waste is the fraction, by weight, of the volatile organic compounds contained in a hazardous waste. For the purpose of determining the VO concentration of a hazardous waste according to the Subpart CC standards, organic compounds with a dimensionless Henry’s law constant value of at least 0.1 at 25 °C must be included. This can also be expressed as 1.8×10^{-6} atmospheres/gram-mole/m³. An alphabetical listing of compounds with Henry’s law constant values less than the cutoff level is presented in [Appendix VI of the December 8, 1997 clarification](#). A copy of this listing is included in Appendix A of this handbook. VO is expressed in terms of parts per million by weight (ppmw) and it is determined either

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by direct measurement or through knowledge of the waste. The direct measurement or process knowledge that is used to determine the VO concentration of a hazardous waste must comply with requirements contained in 40 CFR 265.1084(a)(2) through (4).