

Industrial Waste Landfills

Subpart TT, Greenhouse Gas Reporting Program

OVERVIEW

Subpart TT of the Greenhouse Gas Reporting Program (GHGRP) (40 CFR §§ 98.460 – 98.468) applies to any facility that contains an industrial waste landfill and meets the Subpart TT source category definition. Some subparts have thresholds that determine applicability for reporting, and some do not. To decide whether your facility must report under this Subpart, please refer to 40 CFR § 98.461 and the GHGRP [Applicability Tool](#).

This Information Sheet is intended to help facilities reporting under Subpart TT understand how the source category is defined, what greenhouse gases (GHGs) must be reported, how GHG emissions must be calculated and shared with EPA, and where to find more information.



How is This Source Category Defined?

Under Subpart TT, an industrial waste landfill is any landfill that collects industrial solid waste—such as Resource Conservation and Recovery Act (RCRA) Subtitle D wastes (non-hazardous industrial solid waste, defined in 40 CFR § 257.2), commercial solid wastes, or conditionally exempt small quantity generator wastes—is placed. An industrial waste landfill includes all disposal areas at the facility. The source category includes industrial waste landfills that accepted waste on or after January 1, 1980, and that are located at a facility whose total landfill design capacity is greater than or equal to 300,000 metric tons (tonnes). It includes the landfill, any landfill gas collection systems at the landfill, and destruction devices for landfill gases (including flares).

An industrial waste landfill does not include:

- A municipal solid waste (MSW) landfill,
- A RCRA Subtitle C hazardous waste landfill, or
- A Toxic Substances Control Act (TSCA) hazardous waste landfill.

An industrial waste landfill is *not* subject to the rule if it is a dedicated construction and demolition waste landfill, or a landfill that receives only inert waste materials (as defined at § 98.460(c)(2)), such as coal combustion residue (e.g., fly ash), cement kiln dust, rocks and/or soil from excavation and construction and similar activities, glass, non-chemically bound sand (e.g., green foundry sand), clay, gypsum, pottery cull, bricks, mortar, cement, furnace slag, refractory material, or plastics.



What GHGs Must Be Reported?

Industrial waste landfill owners and operators must report:

- Annual methane (CH₄) generation and CH₄ emissions from the landfill.
- Annual CH₄ destruction (for landfills with gas collection and control systems).
- Annual carbon dioxide (CO₂), CH₄, and nitrous oxide (N₂O) emissions from stationary combustion devices using the calculation methods specified in Subpart C (General Stationary Combustion Sources) found at 40 CFR §§ 98.30 – 98.38. The Subpart C Information Sheet summarizes calculating and reporting emissions from these units.

If multiple Greenhouse Gas Reporting Program (GHGRP) source categories are co-located at a facility, the facility may need to report greenhouse gas (GHG) emissions under a different subpart. Please refer to the relevant information sheet for a summary of the rule requirements for any other source categories located at the facility.



How Must GHG Emissions Be Calculated?

Industrial waste landfills must calculate modeled annual CH₄ generation based on:

- Measured or estimated values of historic annual waste disposal quantities; and
- Appropriate values for model inputs (i.e., degradable organic carbon (DOC) fraction in the waste, CH₄ generation rate constant). Default parameter values are specified for certain industries and for industrial waste generically.

Landfills that do not collect and destroy landfill gas must adjust the modeled annual CH₄ generation to account for soil oxidation (CH₄ that is converted to CO₂ as it passes through the landfill cover before being emitted) using a default soil oxidation factor. The resulting value must be reported and represents both CH₄ generation and CH₄ emissions.

Industrial waste landfill facilities that collect and control landfill gas must use the same calculations specified in Subpart HH (MSW Landfills, found at 40 CFR §§ 98.340 – 98.348) for monitoring, calculation, and reporting requirements related to CH₄ recovery, destruction, and emissions. See the [Subpart HH Information Sheet](#) for further details.

A checklist for data that must be monitored is available here: [Subpart TT Monitoring Checklist](#).



What Information Must Be Reported?

In addition to the information required by the General Provisions in Subpart A, found at 40 CFR § 98.3(c), the following must be reported:

- General information about the landfill, including whether the landfill is “open” or “closed,” the year in which the landfill first started accepting waste for disposal, the last year the landfill accepted waste or the projected year of landfill closure, the capacity of the landfill, and an indication of whether leachate recirculation is used at the landfill.
 - Waste characterization information, such as the number of waste streams accepted at the landfill and a description of each waste stream.
 - Waste stream-specific information, such as the decay rate (k) value used in the calculations, the method(s) for estimating historical waste disposal quantities, and the range of years for which each method applies. When historical disposal rates are estimated based on production or filled capacity, the production or filled capacity parameters needed to estimate the historical disposal rates must also be reported.
 - Historic and current annual landfill operating information, such as the quantity of waste disposed of in the landfill for each waste stream type for each year, the DOC value for each waste stream or waste stream type for each year, an indication as to whether this was the default value, a measured value using a 60-day anaerobic biodegradation test, or a value based on total and volatile solids measurements, and if the DOC value was determined using a 60-day anaerobic biodegradation test, which test was used.
 - The fraction of CH₄ in the landfill gas for the reporting year and an indication as to whether this was the default value or a value determined through measurement data.
 - Description of the landfill cover, such as the type(s) of cover material used, and the landfill surface area at the start of the reporting year associated with each cover type.

- Modeled annual CH₄ generation rate for the reporting year.
- Annual CH₄ emissions (which is CH₄ generation adjusted for oxidation for landfills without gas collection systems) and an indication of whether passive vents and/or passive flares are present at the landfill.

Industrial waste landfills with gas collection systems must report the same additional information as MSW landfills (Subpart HH, MSW Landfills) with landfill gas collection. See the [Subpart HH Information Sheet](#) for further details on these reporting requirements.



What Records Must Be Maintained?

Reporters are required to retain records that pertain to their annual GHGRP report for at least three years after the date the report is submitted. Please see the [Subpart A Information Sheet](#) and 40 CFR § 98.3(g) for general recordkeeping requirements. Specific recordkeeping requirements for Subpart TT are listed at 40 CFR § 98.467.



When and How Must Reports Be Submitted?

Reporters must submit their annual GHGRP reports for the previous calendar year to the EPA by March 31st, unless the 31st falls on a Saturday, Sunday, or federal holiday, in which case reports are due on the next business day. Annual reports must be submitted electronically using the [electronic Greenhouse Gas Reporting Tool \(e-GGRT\)](#), the GHGRP's online reporting system. For facilities required to use the e-GGRT *Inputs Verifier Tool* (IVT), reporters must enter required data into the e-GGRT IVT, which includes inputs to emission equations for which reporting is not required. IVT uses these data to calculate the equation results.

Each report may be prepared by either a designated representative, an alternate designated representative or agent(s) of the owner or operator. The report must be signed by a designated representative of the owner or operator, certifying under penalty of law that the report has been prepared in accordance with the requirements of the rule. Additional information on setting up user accounts, registering a facility, and submitting annual reports is available on the [GHGRP Help webpage](#).



When Can a Facility Stop Reporting?

A facility may discontinue reporting under several scenarios, which are summarized in Subpart A (found at 40 § CFR 98.2(i)) and the [Subpart A Information Sheet](#).



For More Information

For additional information on Subpart TT, please visit the [Subpart TT webpage](#). For additional information on the GHGRP, please visit the [GHGRP website](#), which includes additional information sheets, [data](#) previously reported to the GHGRP, [training materials](#), and links to Frequently Asked Questions ([FAQs](#)). For questions that cannot be answered through the GHGRP website, please contact us at: GHGreporting@epa.gov.

This Information Sheet is provided solely for informational purposes. It does not replace the need to read and comply with the regulatory text contained in the rule. Rather, it is intended to help reporting facilities and suppliers understand key provisions of the GHGRP. It does not provide legal advice; have a legally binding effect; or expressly or implicitly create, expand, or limit any legal rights, obligations, responsibilities, expectations, or benefits with regard to any person or entity.