Suppliers of Natural Gas and Natural Gas Liquids

United States Environmental Protection Agency

Subpart NN, Greenhouse Gas Reporting Program

Under the Greenhouse Gas Reporting Program (GHGRP), suppliers of natural gas and natural gas liquids (NGLs) must report the emissions that would result from the complete combustion or oxidation of the products that they place in commerce. Suppliers of natural gas and NGLs are required to collect data on their products; calculate the GHG emissions associated with these products; and follow the specified procedures for ensuring data quality, amending missing data, and meeting recordkeeping and reporting requirements specified in 40 CFR Part 98 Subpart NN – Suppliers of Natural Gas and Natural Gas Liquids.

Many natural gas and NGL suppliers are also required to report GHGs emitted by their facilities. For more information, see the subpart W (Petroleum and Natural Gas Systems) information sheets.

How Is This Source Category Defined?

Natural gas and NGL suppliers are local natural gas distribution companies (LDCs) and NGL fractionators. These suppliers are defined as follows:

- Local distribution companies are companies that own or operate distribution pipelines that physically deliver natural gas to end users and that are within a single state that are regulated as separate operating companies by State public utility commissions or that operate as independent municipally-owned distribution systems. LDCs do not include pipelines (both interstate and intrastate) delivering natural gas directly to major industrial users and farm taps upstream of the local distribution company inlet.
- Natural gas liquids fractionators are installations that fractionate NGLs into their constituent liquid products (ethane, propane, normal butane, isobutane, or pentanes plus) for supply to downstream facilities.

This supply category does not include the following facilities:

- Field gathering and boosting stations.
- Natural gas processing plants that separate NGLs from natural gas and produce bulk or y-grade NGLs but do not fractionate these NGLs into their constituent products.
- Facilities that meet the definition of refineries and report under subpart MM (Suppliers of Petroleum Products).
- Facilities that meet the definition of petrochemical plants and report under subpart X (Petrochemical Production).

Who Must Report?

- All NGL fractionators are subject to subpart NN regardless of the quantity of NGL products supplied.
- All LDCs that supply 460,000 thousand standard cubic feet of natural gas during a calendar year are subject to subpart NN.

What Greenhouse Gases Must Be Reported?

- NGL fractionators must report carbon dioxide (CO_2) emissions that would result from the complete combustion or oxidation of the annual quantity of ethane, propane, normal butane, isobutane, and pentanes plus that is sold or delivered to others.
- LDCs must report CO_2 emissions that would result from the complete combustion or oxidation of the annual volumes of natural gas provided to end users on their distribution systems.

How Must Greenhouse Gas Emissions Be Calculated?

Two different methods can be used to calculate CO_2 emissions that would result from the complete oxidation or combustion of the product supplied:

- Calculation Methodology 1: Calculate CO_2 mass emissions from a natural gas or NGL product by multiplying the volume of product by its higher heating value (HHV) and its CO_2 emission factor (EF). Use either measured or default fuel HHVs and CO_2 EFs.
- Calculation Methodology 2: Calculate CO_2 mass emissions from a natural gas or NGL product by multiplying the volume of product by its CO_2 EF. Use either measured or default CO_2 EFs.

To avoid double counting of CO_2 emissions associated with the supply of natural gas and NGLs,

- NGL fractionators account for any NGL products received from other fractionators by subtracting the quantity of CO_2 associated with any NGL they receive from the CO_2 associated with quantity of NGL supplied.
- LDCs account for CO_2 emissions from natural gas consumption reported by other GHGRP reporters by subtracting the quantity of CO_2 associated with natural gas supplied to customers receiving equal to or greater than 460,000 thousand standard cubic feet per year from the total quantity of CO_2 associated with the quantity of natural gas supplied.

A checklist for data that must be monitored is available at: https://www.epa.gov/ghgreporting/subpart-nn-checklist.

What Information Must Be Reported?

In addition to the information required by the General Provisions at 40 CFR 98.3(c) each NGL fractionator must report the following information:

- Annual CO_2 emissions in metric tons associated with all NGLs supplied, excluding emissions from quantities of NGL received from other fractionators.
- Annual CO_2 emissions in metric tons associated with the total quantities of NGL that are supplied to facilities, reported in the following product categories:
  - Ethane
  - Propane
  - Normal butane
  - Isobutane
  - Pentanes plus
- Annual quantities in barrels (bbl) of ethane, propane, normal butane, isobutane, and pentanes plus supplied and the specific industry standard used to measure these quantities.

- Annual quantities in bbl of ethane, propane, normal butane, isobutane, and pentanes plus received from other NGL fractionators.
- Annual volume in thousand standard cubic feet of natural gas received for processing.
- Annual quantity in bbl of y-grade, o-grade and other bulk NGLs received.
- Annual quantity in bbl of y-grade, o-grade and other bulk NGL supplied to downstream users that are not fractionated by the reporter.
- Annual quantity in bbl of propane that the NGL fractionator odorizes at the facility and delivers to others.
- Developed EFs and HHVs and the industry standard(s) used to develop them, if developed site-specific EFs or HHVs are used to calculate CO_2.
- Number of days in the reporting year for which substitute data procedures were used to measure quantity, develop HHVs, and develop EFs.

In addition to the information required by the General Provisions at 40 CFR 98.3(c), each LDC must report the following information:

- Annual CO_2 mass emissions in metric tons associated with gas delivered to each large-end user or meter that receives 460,000 thousand standard cubic feet or more per year.
- Annual CO_2 mass emissions in metric tons associated with gas delivered to all customers that receive less than 460,000 thousand standard cubic feet per year.
- Annual volume of natural gas (in thousand standard cubic feet) and the annual CO_2 mass emissions (in metric tons) that would result from the complete combustion or oxidation of the following:
  - Annual volume of natural gas received at the LDC's city gate stations for redelivery on its distribution system, including natural gas used by the LDC.
  - Annual volume of natural gas that bypassed the city gate(s) and was supplied through the LDC distribution system. This includes natural gas from producers and natural gas processing plants from local production, or natural gas that was vaporized upon receipt and delivered, and any other source that bypassed the city gate.
  - Annual volume of natural gas withdrawn from on-system storage and annual volume of vaporized liquefied natural gas (LNG) withdrawn from storage for delivery on the distribution system.
  - Annual volume of natural gas placed into storage, including gas liquefied and placed into storage.
  - Annual volume of natural gas delivered to downstream gas transmission pipelines and other LDCs.
  - Annual volume of natural gas delivered to each large-end user's facility or large-end user's meter registering supply equal to or greater than 460,000 thousand standard cubic feet during the calendar year and the large-end user's customer name, address, meter number, and EIA identification number (if known).
- Specific industry standard used to measure the volumes of natural gas reported.
- Developed EFs and HHVs and the industry standard(s) used to develop them, if developed site-specific EFs or HHVs are used to calculate CO_2.
- Annual volume of natural gas delivered to each of the following end-user categories (in thousand standard cubic feet):
  - Residential consumers.
  - Commercial consumers.
  - Industrial consumers.
  - Electricity-generating facilities.

- Number of days in the reporting year for which substitute data procedures were used to measure quantity, develop HHVs and develop EFs.
- Name of the state or U.S. territory in which the LDC operates.

When and How Must Reports Be Submitted?

Annual reports must be submitted by March 31 of each year, unless the 31st is a Saturday, Sunday, or federal holiday, in which case the 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. Additional information on setting up user accounts, registering a facility and submitting annual reports is available at https://ccdsupport.com/confluence/.

When Can a Facility Stop Reporting?

There are several scenarios under which a facility may discontinue reporting. These scenarios are summarized in the Subpart A Information Sheet as well as in an FAQ.

For More Information

For additional information on Subpart NN, visit the Subpart NN Resources webpage. For additional information on the Greenhouse Gas Reporting Program, visit the Greenhouse Gas Reporting Program Website, which includes information sheets on other rule subparts, data previously reported to the Greenhouse Gas Reporting Program, training materials, and links to frequently asked questions.

This document is provided solely for informational purposes. It does not provide legal advice, have legally binding effect, or expressly or implicitly create, expand, or limit any legal rights, obligations, responsibilities, expectations, or benefits in regard to any person. The series of information sheets is intended to assist reporting facilities/owners in understanding key provisions of the Greenhouse Gas Reporting Program.