

# Lead Production

## Subpart R, Greenhouse Gas Reporting Program

### OVERVIEW

Subpart R of the Greenhouse Gas Reporting Program (GHGRP) (40 CFR §§ 180 – 98.188) applies to any facility that produces lead (Pb) and meets the Subpart R 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 § 98.181 and the GHGRP [Applicability Tool](#).

This Information Sheet is intended to help facilities reporting under Subpart R 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?

The lead (Pb) production source category consists of primary and secondary Pb smelters. A primary Pb smelter is a facility engaged in the production of Pb metal from lead sulfide (PbS) ore concentrates through the use of pyrometallurgical techniques (smelting). A secondary Pb smelter is a facility at which Pb-bearing scrap materials (including but not limited to Pb-acid batteries) are recycled by smelting into elemental Pb or Pb alloys.



### What GHGs Must Be Reported?

Pb production facilities must report the following emissions:

- Carbon dioxide (CO<sub>2</sub>) process emissions from each smelting furnace used for Pb production.
- CO<sub>2</sub> combustion emissions from each smelting furnace used for Pb production.
- Methane (CH<sub>4</sub>) and nitrous oxide (N<sub>2</sub>O) emissions from fuel combustion at each smelting furnace. Report these emissions under Subpart C (General Stationary Fuel Combustion Sources), found at 40 CFR §§ 98.30 – 98.38. The Subpart C Information Sheet summarizes the rule requirements for calculating and reporting emissions from these units.
- CO<sub>2</sub>, CH<sub>4</sub>, and N<sub>2</sub>O emissions from each onsite stationary fuel combustion unit other than smelting furnaces under Subpart C.

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?

For CO<sub>2</sub> emissions from each smelting furnace, facilities must use one of two methods, as appropriate:

- Pb smelting furnaces with certain types of continuous emission monitoring systems (CEMS) in place must report using the CEMS and following the Tier 4 methodology of Subpart C (General Stationary Fuel Combustion Sources), found at 40 CFR §§ 98.30 – 98.38 to report combined CO<sub>2</sub> emissions from the smelting process and fuel combustion.
- For other affected smelting furnaces, the reporter can elect to use one of two methods, as follows:
  - **CEMS.** Operate a CEMS to measure combined process and combustion CO<sub>2</sub> emissions according to requirements specified in Subpart C.
  - **Carbon mass balance procedure.** Conduct a once-per-year calculation using recorded monthly production data and the average carbon content for each smelting furnace input material, including carbonaceous reducing agents. Determine carbon content either using material supplier information or by annual analysis of three representative samples of each material. Materials that can be documented to contribute less than 1% of the total carbon into the process can be excluded.

A checklist for data that must be monitored is available here: [Subpart R 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 under the circumstances indicated:

- If a CEMS is used to measure CO<sub>2</sub> emissions, then under this subpart the relevant information required for the CEMS by Subpart C (General Stationary Fuel Combustion Sources), found at 40 CFR §§ 98.30 – 98.38 and the information listed below must be reported:
  - Identification number of each smelting furnace.
  - Annual Pb product production capacity (short tons (tons)).
  - Annual production for each Pb product (tons).
  - Total number of smelting furnaces at the facility used for Pb production.
- If a CEMS is not used to measure emissions, then the following information must be reported:
  - Identification number of each smelting furnace.
  - Annual process CO<sub>2</sub> emissions from each smelting furnace (metric tons (tonnes)).
  - Annual Pb product production capacity for the facility and each smelting furnace (tons).
  - Annual production for each Pb product (tons).
  - Total number of smelting furnaces at the facility used for Pb production.
  - The method used for the determination of carbon content for each material reported.
  - If the missing data procedures are used, then report how the monthly mass of carbon-containing materials with missing data was determined and the number of months in which the missing data procedures were used.

Facilities not using CEMS must enter certain data into the GHGRP *Inputs Verifier Tool* (IVT), which uses the data to calculate the GHG emissions and check for errors. The data entered in IVT are not collected by EPA.



## 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 R are listed at 40 CFR § 98.187.



## When and How Must Reports Be Submitted?

Reporters must submit their annual GHGRP reports for the previous calendar year to the EPA by March 31<sup>st</sup>, unless the 31<sup>st</sup> 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 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 R, please visit the [Subpart R 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](mailto: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.*