

**ABBREVIATED REPORTING FOR SMALL SOURCES WITH GENERAL
STATIONARY COMBUSTION EMISSIONS ONLY**

This applies to facilities that:

- **emit more than 10,000 but less than 25,000 metric tons CO₂e per year from General Stationary Combustion;**
- **do not have emissions from any of the other source categories covered by 20.2.300 NMAC**

20.2.300 NMAC EXCERPT (20.2.300.102.R)

R. Section 98.3(d) (special provisions for reporting year 2010) is replaced as follows: "Abbreviated emissions report for facilities containing only general stationary fuel combustion sources and emitting less than 25,000 metric tons CO₂e per year, exclusive of reporting-only emissions.

(1) An owner or operator that is otherwise subject to the requirements of this part may submit an abbreviated emissions report in lieu of the report required by 40 CFR 98.3(c) if all of the following apply:

(a) total emissions exclusive of reporting-only emissions are less than 25,000 metric tons CO₂e;

(b) no emissions are required to be reported by this part other than those required to be reported by 40 CFR 98 Subpart C-General Stationary Fuel Combustion, as incorporated in this part with modifications in 20.2.300.103 NMAC, including CO₂ from combustion of biomass-derived fuels;

(c) the facility is not required to report greenhouse gas emissions to the US EPA under 40 CFR 98; and

(d) the facility emissions report is not subject to verification requirements under 20.2.301 NMAC

(2) The abbreviated report shall contain the following information:

(a) facility, operating or construction permit number or notice of intent number, and physical street address including the city, state and zip code, or geographical location if not at a street address;

(b) the year and months covered by the report;

(c) date of submittal;

(d) total facility GHG emissions aggregated for all stationary fuel combustion units calculated according to any method specified in 40 CFR 98.33(a) and expressed in metric tons of total CO₂, CO₂ from biomass fuels, CH₄, N₂O, and CO₂e;

(e) identification of the methods used to determine emissions;

(f) any facility operating data or process information used for the GHG emission calculations;

(g) a signed and dated certification statement provided by the designated representative of the owner or operator, according to the requirements 40 CFR 98.3(c)(9) as modified in Subsection Q of this section; and

(h) for facilities with on-site electricity generation or cogeneration, the information specified in Paragraphs (1) and (2) of Subsection D of 20.2.300.103 NMAC."

QUANTIFYING COMBUSTION EMISSIONS

The rule says that any method in Subpart C of the federal rule [40 CFR 98.33(a)] can be used. The simplest method for quantifying combustion emissions of CO₂ is Tier 1, which involves multiplying annual fuel use by two default factors from Table C-1 in the federal rule. Similar simple equations in Subpart C are used to calculate methane (CH₄) and nitrous oxide (N₂O) emissions from combustion. Fuel use data do not have to be obtained from metering, but can be obtained from company records, which are defined as follows:

Company records means, in reference to the amount of fuel consumed by a stationary combustion unit (or by a group of such units), a complete record of the methods used, the measurements made, and the calculations performed to quantify fuel usage. Company records may include, but are not limited to, direct measurements of fuel consumption by gravimetric or volumetric means, tank drop measurements, and calculated values of fuel usage obtained by measuring auxiliary parameters such as steam generation or unit operating hours. Fuel billing records obtained from the fuel supplier qualify as company records. [40 CFR 98.6]

USING THE EPA APPLICABILITY TOOL TO CALCULATE EMISSIONS

Assuming you have an estimate of your annual fuel use for stationary combustion units, you can use the EPA Applicability Tool as an easy way to calculate your emissions: <http://www.epa.gov/climatechange/emissions/GHG-calculator/index.html>

Note: This tool was designed to determine applicability for EPA reporting, which includes a screening threshold in terms of aggregate maximum rated heat input capacity. 20.2.300 NMAC does not have this same threshold, so when the tool shows a screen asking if your heat input capacity exceeds the EPA threshold, you must answer "No" or "Unsure" in order to proceed to the emissions calculation step.

The tool automatically calculates emissions of CO₂, CH₄, and N₂O using default emissions factors, and converts emissions to metric tons of CO₂ equivalents (CO₂e).

TIER 1 METHOD FOR CO₂

The EPA rule gives three equations for Tier 1. Equation C-1 should be used except when natural gas billing records are used to quantify fuel use and gas consumption is expressed in units of therms or million Btu.

$$CO_2 = 1 \times 10^{-3} * Fuel * HHV * EF \quad (\text{Eq. C-1})$$

Where:

CO₂ = Annual CO₂ mass emissions for the specific fuel type (metric tons).

Fuel = Mass or volume of fuel combusted per year, from company records as defined in § 98.6 (express mass in short tons for solid fuel, volume in standard cubic feet for gaseous fuel, and volume in gallons for liquid fuel).
 HHV = Default high heat value of the fuel, from Table C-1 of this subpart (mmBtu per mass or mmBtu per volume, as applicable).
 EF = Fuel-specific default CO₂ emission factor, from Table C-1 of this subpart (kg CO₂/mmBtu).
 $1 \times 10^{-3} = 0.001$ = Conversion factor from kilograms to metric tons.

If natural gas consumption is obtained from billing records and is expressed in therms, use Equation C-1a:

$$CO_2 = 1 \times 10^{-3} [0.1 \times Gas \times EF] \quad (\text{Eq. C-1a})$$

Where:

CO₂ = Annual CO₂ mass emissions from natural gas combustion (metric tons).
 Gas = Annual natural gas usage, from billing records (therms).
 EF = Fuel-specific default CO₂ emission factor for natural gas, from Table C-1 of this subpart (kg CO₂/mmBtu).
 $1 \times 10^{-3} = 0.001$ = Conversion factor from kilograms to metric tons.

If natural gas consumption is obtained from billing records and is expressed in million Btu (mmBtu), use Equation C-1b:

$$CO_2 = 1 \times 10^{-3} \times Gas \times EF \quad (\text{Eq. C-1b})$$

Where:

CO₂ = Annual CO₂ mass emissions from natural gas combustion (metric tons).
 Gas = Annual natural gas usage, from billing records (mmBtu).
 EF = Fuel-specific default CO₂ emission factor for natural gas, from Table C-1 of this subpart (kg CO₂/mmBtu).
 $1 \times 10^{-3} = 0.001$ = Conversion factor from kilograms to metric tons.

EQUATIONS FOR METHANE AND NITROUS OXIDE EMISSIONS

Use one of the following equations to calculate methane and nitrous oxide emissions, depending on whether the fuel is natural gas and whether fuel consumption is obtained from billing records in units of therms or million Btu (mmBtu).

Use Equation C-8 except when natural gas billing records are used to quantify fuel use and gas consumption is expressed in units of therms or million Btu:

$$CH_4 \text{ or } N_2O = 1 \times 10^{-3} * Fuel * HHV * EF \quad (\text{Eq. C-8})$$

Where:

CH₄ or N₂O = Annual CH₄ or N₂O emissions from the combustion of a particular type of fuel (metric tons).

Fuel = Mass or volume of the fuel combusted, either from company records or directly measured by a fuel flow meter, as applicable (mass or volume per year).

HHV = Default high heat value of the fuel from Table C-1 of this subpart; alternatively, for Tier 3, if actual HHV data are available for the reporting year, you may average these data using the procedures specified in paragraph (a)(2)(ii) of this section, and use the average value in Equation C-8 (mmBtu per mass or volume).

EF = Fuel-specific default emission factor for CH₄ or N₂O, from Table C-2 of this subpart (kg CH₄ or N₂O per mmBtu).

$1 \times 10^{-3} = 0.001$ = Conversion factor from kilograms to metric tons.

If natural gas consumption is obtained from billing records and is expressed in therms, use Equation C-8a:

$$CH_4 \text{ or } N_2O = 1 \times 10^{-3} * Fuel * 0.1 * EF \quad (\text{Eq. C-8a})$$

Where:

CH₄ or N₂O = Annual CH₄ or N₂O emissions from the combustion of natural gas (metric tons).

Fuel = Annual natural gas usage, from gas billing records (therms).

EF = Fuel-specific default emission factor for CH₄ or N₂O, from Table C-2 of this subpart (kg CH₄ or N₂O per mmBtu).

0.1 = conversion factor from therms to mmBtu.

$1 \times 10^{-3} = 0.001$ = Conversion factor from kilograms to metric tons.

If natural gas consumption is obtained from billing records and is expressed in million Btu (mmBtu), use Equation C-8b:

$$CH_4 \text{ or } N_2O = 1 \times 10^{-3} * Fuel * EF \quad (\text{Eq. C-8b})$$

Where:

CH₄ or N₂O = Annual CH₄ or N₂O emissions from the combustion of natural gas (metric tons).

Fuel = Annual natural gas usage, from gas billing records (mmBtu).

EF = Fuel-specific default emission factor for CH₄ or N₂O, from Table C-2 of this subpart (kg CH₄ or N₂O per mmBtu).

$1 \times 10^{-3} = 0.001$ = Conversion factor from kilograms to metric tons.

CONVERTING EMISSIONS TO CARBON DIOXIDE EQUIVALENTS (CO₂e)