

**Environmental Protection Agency**

**§ 98.403**

**§ 98.401 Reporting threshold.**

Any supplier of natural gas and natural gas liquids that meets the requirements of §98.2(a)(4) must report GHG emissions.

**§ 98.402 GHGs to report.**

(a) NGL fractionators must report the CO<sub>2</sub> 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 produced and sold or delivered to others.

(b) LDCs must report the CO<sub>2</sub> 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.

**§ 98.403 Calculating GHG emissions.**

(a) LDCs and fractionators shall, for each individual product reported under this part, calculate the estimated CO<sub>2</sub>

emissions that would result from the complete combustion or oxidation of the products supplied using either of Calculation Methodology 1 or 2 of this subpart:

(1) *Calculation Methodology 1.* NGL fractionators shall estimate CO<sub>2</sub> emissions that would result from the complete combustion or oxidation of the product(s) supplied using Equation NN-1 of this section. LDCs shall estimate CO<sub>2</sub> emissions that would result from the complete combustion or oxidation of the product received at the city gate using Equation NN-1. For each product, use the default value for higher heating value and CO<sub>2</sub> emission factor in Table NN-1 of this subpart. Alternatively, for each product, a reporter-specific higher heating value and CO<sub>2</sub> emission factor may be used, in place of one or both defaults provided they are developed using methods outlined in §98.404. For each product, you must use the same volume unit throughout the equation.

$$CO_{2i} = 1 \times 10^{-3} * \sum Fuel_h * HHV_h * EF_h \quad (\text{Eq. NN-1})$$

Where:

CO<sub>2i</sub> = Annual CO<sub>2</sub> mass emissions that would result from the combustion or oxidation of each product “h” for redelivery to all recipients (metric tons).

Fuel<sub>h</sub> = Total annual volume of product “h” supplied (volume per year, in thousand standard cubic feet (Mscf) for natural gas and bbl for NGLs).

HHV<sub>h</sub> = Higher heating value of product “h” supplied (MMBtu/Mscf or MMBtu/bbl).

EF<sub>h</sub> = CO<sub>2</sub> emission factor of product “h” (kg CO<sub>2</sub>/MMBtu).

1×10<sup>-3</sup> = Conversion factor from kilograms to metric tons (MT/kg).

(2) *Calculation Methodology 2.* NGL fractionators shall estimate CO<sub>2</sub> emissions that would result from the complete combustion or oxidation of the product(s) supplied using Equation NN-2 of this section. LDCs shall estimate CO<sub>2</sub> emissions that would result from the complete combustion or oxidation of the product received at the city gate using Equation NN-2. For each product, use the default CO<sub>2</sub> emission factor found in Table NN-2 of this subpart.

Alternatively, for each product, a reporter-specific CO<sub>2</sub> emission factor may be used in place of the default factor, provided it is developed using methods outlined in §98.404. For each product, you must use the same volume unit throughout the equation.

$$CO_{2i} = \sum_h Fuel_h * EF_h \quad (\text{Eq. NN-2})$$

Where:

CO<sub>2i</sub> = Annual CO<sub>2</sub> mass emissions that would result from the combustion or oxidation of each product “h” (metric tons)

Fuel<sub>h</sub> = Total annual volume of product “h” supplied (volume per year, in Mscf for natural gas and bbl for NGLs).

EF<sub>h</sub> = CO<sub>2</sub> emission factor of product “h” (MT CO<sub>2</sub>/bbl, or MT CO<sub>2</sub>/Mscf)

(b) Each LDC shall follow the procedures below.

(1) For natural gas that is received for redelivery to downstream gas transmission pipelines and other local distribution companies, use Equation NN-