$98.421$ Purification, compression, or processing of CO$_2$.

(5) On-site use of CO$_2$ captured on site.

(c) This source category does not include CO$_2$ imported or exported in equipment, such as fire extinguishers.

§ 98.421 Reporting threshold.

Any supplier of CO$_2$ who meets the requirements of §98.2(a)(4) of subpart A of this part must report the mass of CO$_2$ captured, extracted, imported, or exported.

§ 98.422 GHGs to report.

(a) Mass of CO$_2$ captured from production process units.

(b) Mass of CO$_2$ extracted from CO$_2$ production wells.

(c) Mass of CO$_2$ imported.

(d) Mass of CO$_2$ exported.


§ 98.423 Calculating CO$_2$ supply.

(a) Except as allowed in paragraph (b) of this section, calculate the annual mass of CO$_2$ captured, extracted, imported, or exported through each flow meter in accordance with the procedures specified in either paragraph (a)(1) or (a)(2) of this section. If multiple flow meters are used, you shall calculate the annual mass of CO$_2$ for all flow meters according to the procedures specified in paragraph (a)(3) of this section.

(1) For each mass flow meter, you shall calculate quarterly the mass of CO$_2$ in a CO$_2$ stream in metric tons by multiplying the mass flow by the composition data, according to Equation PP–1 of this section. Mass flow and composition data measurements shall be made in accordance with §98.424 of this subpart.

\[
CO_{2,u} = \sum_{p=1}^{4} Q_{p,u} \cdot C_{CO_{2,p,u}} \quad \text{(Eq. PP-1)}
\]

Where:

- $CO_{2,u}$ = Annual mass of CO$_2$ (metric tons) through flow meter $u$.
- $C_{CO_{2,p,u}}$ = Quarterly CO$_2$ concentration measurement in flow for flow meter $u$ in quarter $p$ (wt. %CO$_2$).
- $Q_{p,u}$ = Quarterly mass flow rate measurement for flow meter $u$ in quarter $p$ (metric tons).
- $p$ = Quarter of the year.
- $u$ = Flow meter.

(2) For each volumetric flow meter, you shall calculate quarterly the mass of CO$_2$ in a CO$_2$ stream in metric tons by multiplying the volumetric flow by the concentration and density data, according to Equation PP–2 of this section. Volumetric flow, concentration and density data measurements shall be made in accordance with §98.424 of this section.

\[
CO_{2,u} = \sum_{p=1}^{4} Q_{p} \cdot D_{p} \cdot C_{CO_{2,p}} \quad \text{(Eq. PP-2)}
\]

Where:

- $CO_{2,u}$ = Annual mass of CO$_2$ (metric tons) through flow meter $u$.
- $C_{CO_{2,p}}$ = Quarterly CO$_2$ concentration measurement in flow for flow meter $u$ in quarter $p$ (measured as either volume % CO$_2$ or weight % CO$_2$).
- $Q_{p}$ = Quarterly volumetric flow rate measurement for flow meter $u$ in quarter $p$ (standard cubic meters).
- $D_{p}$ = Density of CO$_2$ in quarter $p$ (metric tons CO$_2$ per standard cubic meter) for flow meter $u$ if $C_{CO_{2,p}}$ is measured as volume % CO$_2$, or density of the whole CO$_2$ stream for flow meter $u$ (metric tons per standard cubic meter).