

1100 Air Quality Management Section

1125 Requirements for Preconstruction Review

08/11/2005 xx/xx/xx

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1.9 Definitions - For the purposes of this regulation

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**“Greenhouse Gases (GHG)”** means an air pollutant composed of an aggregate group of six greenhouse gases; carbon dioxide (CO<sub>2</sub>), nitrous oxide (N<sub>2</sub>O), methane (CH<sub>4</sub>), hydrofluorocarbons (HFC), perfluorocarbons (PFC), and sulfur hexafluoride (SF<sub>6</sub>). For the purposes of this regulation, the term CO<sub>2</sub>equivalent emissions (CO<sub>2</sub>e) shall represent an amount of GHG emitted, and shall be computed as follows;

- Multiply the mass amount of emissions (tpy), for each of the six greenhouse gases in the pollutant GHG by the gases associated global warming potential as shown in Table 1-1 of this regulation.
- Sum the resultant value for each gas to compute a tpy CO<sub>2</sub>e

Table 1-1

GLOBAL WARMING POTENTIALS

Name	CAS No.	Chemical formula	Global warming potential (100 yr.)
Carbon dioxide	124-38-9	CO <sub>2</sub>	1
Methane	74-82-8	CH <sub>4</sub>	21
Nitrous oxide	10024-97-2	N <sub>2</sub> O	310
HFC-23	75-46-7	CHF <sub>3</sub>	11,700

HFC-32	75-10-5	CH <sub>2</sub> F <sub>2</sub>	650
HFC-41	593-53-3	CH <sub>3</sub> F	150
HFC-125	354-33-6	C <sub>2</sub> HF <sub>5</sub>	2,800
HFC-134	359-35-3	C <sub>2</sub> H <sub>2</sub> F <sub>4</sub>	1,000
HFC-134a	811-97-2	CH <sub>2</sub> FCF <sub>3</sub>	1,300
HFC-143	430-66-0	C <sub>2</sub> H <sub>3</sub> F <sub>3</sub>	300
HFC-143a	420-46-2	C <sub>2</sub> H <sub>3</sub> F <sub>3</sub>	3,800
HFC-152	624-72-6	CH <sub>2</sub> FCH <sub>2</sub> F	53
HFC-152a	75-37-6	CH <sub>3</sub> CHF <sub>2</sub>	140
HFC-161	353-36-6	CH <sub>3</sub> CH <sub>2</sub> F	12
HFC-227ea	431-89-0	C <sub>3</sub> HF <sub>7</sub>	2,900
HFC-236cb	677-56-5	CH <sub>2</sub> FCF <sub>2</sub> CF <sub>3</sub>	1,340
HFC-236ea	431-63-0	CHF <sub>2</sub> CHF <sub>2</sub> CF <sub>3</sub>	1,370
HFC-236fa	690-39-1	C <sub>3</sub> H <sub>2</sub> F <sub>6</sub>	6,300
HFC-245ca	679-86-7	C <sub>3</sub> H <sub>3</sub> F <sub>5</sub>	560
HFC-245fa	460-73-1	CHF <sub>2</sub> CH <sub>2</sub> CF <sub>3</sub>	1,030
HFC-365mfc	406-58-6	CH <sub>3</sub> CF <sub>2</sub> CH <sub>2</sub> CF <sub>3</sub>	794
HFC-43-10mee	138495-42-8	CF <sub>3</sub> CFHCFHCF <sub>2</sub> CF <sub>3</sub>	1,300
Sulfur hexafluoride	2551-62-4	SF <sub>6</sub>	23,900
PFC-14 (Perfluoromethane)	75-73-0	CF <sub>4</sub>	6,500
PFC-116 (Perfluoroethane)	76-16-4	C <sub>2</sub> F <sub>6</sub>	9,200
PFC-218 (Perfluoropropane)	76-19-7	C <sub>3</sub> F <sub>8</sub>	7,000
Perfluorocyclopropane	931-91-9	C-C <sub>3</sub> F <sub>6</sub>	17,340
PFC-3-1-10 (Perfluorobutane)	355-25-9	C <sub>4</sub> F <sub>10</sub>	7,000
Perfluorocyclobutane	115-25-3	C-C <sub>4</sub> F <sub>8</sub>	8,700
PFC-4-1-12 (Perfluoropentane)	678-26-2	C <sub>5</sub> F <sub>12</sub>	7,500
PFC-5-1-14 (Perfluorohexane)	355-42-0	C <sub>6</sub> F <sub>14</sub>	7,400
PFC-9-1-18	306-94-5	C <sub>10</sub> F <sub>18</sub>	7,500

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**“Subject to Regulation”** means, for any air pollutant, that the pollutant is subject to either a provision in the Clean Air Act, or a nationally-applicable regulation codified by EPA, that requires actual control of the quantity of emissions of that pollutant, and that such a control requirement has taken effect and is

operative to control, limit or restrict the quantity of emissions of that pollutant released from the regulated activity. Except that GHG shall not be subject to regulation except as follows:

(a) Beginning January 2, 2011, the pollutant GHG shall be subject to regulation if:

- The stationary source is a new major stationary source for any pollutant subject to regulation under the CAA that is not GHG and also will emit or will have the potential to emit 75,000 tpy CO<sub>2</sub>e or more; or
- The stationary source is an existing major stationary source for any pollutant subject to regulation under the CAA that is not GHG and also will have an emissions increase of that pollutant and an emissions increase of 75,000 tpy CO<sub>2</sub>e or more: and, in addition,

(b) Beginning July 1, 2011, the pollutant GHG also shall be subject to regulation:

- At a new stationary source that will emit or have the potential to emit 100,000 tpy CO<sub>2</sub>e: or
- At an existing stationary source that emits or has the potential to emit 100,000 tpy CO<sub>2</sub>e when such stationary source undertakes a physical change or change in the method of operation that will result in an emissions increase of 75,000 tpy CO<sub>2</sub>e or more.

The term emissions increase, as used above, shall mean that both a significant emissions increase and a significant net emissions increase occur.

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3.7.3 The requirements of 3.8 through 3.15 of this regulation apply ~~only~~ to any major stationary source or major modification that would be constructed in an area designated as attainment or unclassifiable.