

New definitions for GHGs and related terminology

Title 129 GHG rule "flow" chart
September 1, 2010

Blue text = New language
Red text = Proposed late addition language

CHAPTER 1 – DEFINITIONS

032 "CO₂ equivalent emissions (CO₂e)" shall represent an amount of greenhouse gases (GHGs) emitted, and shall be computed by the sum total of multiplying the mass amount of emissions, in tons per year (tpy), for each of the six greenhouse gases in the pollutant GHGs, by each of the gas's associated global warming potential (see definition for Global Warming Potential).

064 "Global Warming Potential" means the ratio of the time-integrated radiative forcing from the instantaneous release of one kilogram of a trace substance relative to that of one kilogram of a reference gas, i.e., CO₂. The pollutant greenhouse gases (GHGs) is adjusted to calculate CO₂ equivalence using "Table A-1 – Global Warming Potentials" at 40 CFR Part 98, Subpart A, as published in the Federal Register on October 30, 2009 (Volume 74, Number 209, Pages 56395-96).

065 "Greenhouse gases (GHGs)" means the air pollutant defined as the aggregate group of six gases: carbon dioxide (CO₂), nitrous oxide (N₂O), methane (CH₄), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF₆).

The definition of a major source for the Title V operating permit program was revised so that BEGINNING on 7/1/11, GHGs alone can make a source major.

CHAPTER 2 – DEFINITION OF MAJOR SOURCE (TITLE V)

002 Except as otherwise expressly provided herein, for all other regulated air pollutants, a major stationary source of air pollutants is defined as follows:

002.01 Any stationary source of air pollutants that directly emits or has the potential to emit, 100 tpy or more of any regulated air pollutant (including any major source of fugitive emissions of any such pollutant, as determined by rule by the Administrator of EPA).

002.02 Beginning July 1, 2011, any stationary source that meets the criteria in 002.01 for GHGs on a mass basis, and emits or has the potential to emit 100,000 tons per year or more CO₂e.

CHAPTER 2 – DEFINITION OF MAJOR SOURCE (PSD)

004 Any physical change that would occur at a stationary source not otherwise qualifying as a major stationary source, shall be considered a major stationary source, if the change by itself would constitute a major stationary source.

008 Major stationary source, for the purposes of the Prevention of Significant Deterioration of Air Quality Program (PSD), includes the sources described in sections 008.01 through 008.03A. Sources in the categories listed in sections 002.03A through 002.03AA must include fugitive emissions in determining major source status.

008.04 For purposes of GHGs, beginning July 1, 2011, any stationary source that meets the criteria in 008.01 or 008.02 for GHGs on a mass basis, and emits or has the potential to emit 100,000 tons per year or more CO₂e.

The definition of a major source for the PSD program was revised so that beginning 7/1/11, GHGs alone can make a source major.

CHAPTER 1 – DEFINITIONS (cont.)

130 "Regulated air pollutant" means the following:

130.01 Nitrogen oxides or any volatile organic compounds as defined in this Chapter;
130.02 Any pollutant for which a national ambient air quality standard has been promulgated;
130.04 Any pollutant subject to a standard or other requirements established in Chapters 27 or 28 relating to hazardous air pollutants...

130.05 Beginning January 2, 2011, Greenhouse gases (GHGs), except as follows:
130.05A From January 2, 2011, through June 30, 2011, the pollutant GHGs is a regulated air pollutant only if a source is defined as a major source due to a regulated air pollutant that is not GHGs.

131 "Regulated NSR pollutant" means the following:

131.01 Any pollutant for which a national ambient air quality standard has been promulgated and any constituents or precursors for such pollutants identified by the Administrator (e.g., volatile organic compound are precursors for ozone);

131.04 Any pollutant that otherwise is subject to regulation under the Act; except that any or all hazardous air pollutants either listed in section 112 of the Act or ... or of a general pollutant listed under section 108 of the Act.

131.05 Beginning January 2, 2011, Greenhouse gases (GHGs), except as follows:
131.05A From January 2, 2011, through June 30, 2011, the stationary source is a new major stationary source for a regulated NSR pollutant that is not GHGs, and emission of GHGs (expressed as on a mass basis, not CO₂e) has the potential to exceed zero 0 tons per year.
131.05B From January 2, 2011, through June 30, 2011, the stationary source is an existing major stationary source for a regulated NSR pollutant that is not GHGs, and the project will result in a significant increase and a significant net increase in the regulated pollutant that is not GHGs, and emission of GHGs (expressed as on a mass basis, not CO₂e) exceeds or has the potential to exceed zero 0 tons per year.

132 "Regulated pollutant for fee purposes" means any regulated air pollutant as defined in this chapter identified in the previous section, except for the following:

132.01 Carbon monoxide;
132.02 Particulate matter, excluding PM₁₀;
132.04 Any pollutant that is a regulated air pollutant solely because it is subject to a standard or regulation promulgated under Section 112(r) of the Act and regulations adopted by the Council.
131.05 Greenhouse gases (GHGs)

Because definition 130 can bring GHGs into definition 132 and subject them to emission fees, definition 132 was revised to specifically exclude GHGs.

Used by the Title V Operating Permit program to define what pollutants are regulated, this was revised to provide the "phase in" period for GHG regulation from 1/2/11 through 6/30/11. Unless GHGs is triggered by this definition for your particular source, it is not regulated by Title V. This is an alternative to creating a definition for "subject to regulation" as the federal rule did.

CHAPTER 5

001 Applicability and Scope. The following sources are required to obtain operating permits unless exempted under 002:

001.01 Class I (major source) permits shall be required to operate any of the following:

001.01A Any major source as defined in Chapter 2;

001.01B Any source, including an area source, ...Chapter 18.

001.02 Unless a Class I permit is required, Class II (minor source) permits shall be required to operate any of the following, unless covered under ...

001.03 Any source or emissions unit required to obtain a Class I permit based on potential emissions may request that potential to emit be limited to below the major source threshold, as provided in Chapter 42 or in section 001.03A and 001.03B below.

001.03A Synthetic Minor Permits

001.03A1 Any source or emissions unit with actual emissions between the levels specified in section 001.02A above and the major source levels may apply for a Class II permit, as a synthetic minor source, which provides enforceable limits to potential emissions, as provided in Chapters 7 through 15.

001.03A2 Any source or emissions unit with actual GHGs emissions less than 100 tons per year on a mass basis and/or less than 100,000 tons per year of CO₂e may apply for a Class II permit which provides enforceable limits to potential emissions, as provided in Chapters 7 through 15.

001.03B LE rule....

Provides the ability of an otherwise Title V major source to take permit limits to remain a minor source as long as either actual emissions of GHGs is below at least one of the two thresholds. The construction permit program in Chapter 17.014.01 already has the ability to write synthetic minor permits for GHGs.

Used by the PSD Construction Permit program to define what pollutants are regulated, this was revised to provide a "phase in" period for GHG regulation from 1/2/11 through 6/30/11. The first part specifies that any new source must first trigger permitting requirements for another NSR pollutant before GHGs is considered to be a "regulated NSR pollutant". By virtue of Chapter 2.004, this also covers any minor source that undergoes a major modification. The second part specifies that any existing major source must have a major modification of a non-GHG pollutant, and an increase in GHG emissions itself before GHGs is considered a "regulated NSR pollutant". Beginning July 1, 2011, GHG is a "Regulated NSR pollutant" and a "Regulated air pollutant" without exception

CHAPTER 19 – PSD

010 Significant means, in reference to an emission increase or a net emissions increase or the potential of a source to emit any of the following pollutants, a rate of emissions that would equal or exceed any of the following rates:

010.01 100 tons per year of carbon monoxide;

010.02 40 tons per year of nitrogen oxides;

010.05 15 tons per year of PM₁₀ emissions;

010.06 For ozone, 40 tons per year of volatile organic compounds;

010.11 10 tons per year of total reduced sulfur compounds (including H₂S);

010.17 For the pollutant greenhouse gases (GHGs).

010.17A Greater than zero 0 tons per year on a mass basis; and

010.17B 75,000 tons per year CO₂e.

010.18 For any regulated NSR pollutant not listed in sections 010.01 through 010.17, any increase is significant.

Adds a significance level for GHGs that determines whether a modification is considered a major modification, thus subject to the PSD requirements. Without a threshold listed, paragraph 010.18 would apply to GHGs making ANY emission increase in GHGs significant.