

**WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
STANDARDS AND REGULATIONS**

Permitting Requirements

CHAPTER 6

Section 1. Introduction to permitting requirements.

(a) Chapter 6 establishes permitting requirements for all sources constructing and/or operating in the State of Wyoming. Section 2 covers general air quality permitting requirements for construction and modification as well as minor source permits to operate. Notwithstanding the requirements of Section 2(a)(i) and (iii), a preconstruction permit under Section 2 is not required for the pollutant Greenhouse Gases (GHGs) unless the facility or source is also required to obtain a permit for GHGs under Chapter 6, Section 4. Section 3 is the state operating permit program required under Title V of the Clean Air Act. Section 4 is the prevention of significant deterioration (PSD) program. The Section 5 language regarding permitting requirements for major sources of hazardous air pollutants for which a MACT (Maximum Achievable Control Technology) standard has been established under section 112 of the Clean Air Act has been removed from Chapter 6, and is now covered under Chapter 5, Section 3. Section 6 covers permitting requirements for major sources of hazardous air pollutants for which a MACT standard has not been established under section 112 of the Clean Air Act. Section 7 establishes the terms under which clean air resource allocations expire. Section 8 is reserved. Section 9 establishes Best Available Retrofit Technology (BART) requirements and provides guidelines for identifying sources subject to BART. Sections 10, 11 and 12 are reserved. Section 13 incorporates by reference 40 CFR part 51.165, nonattainment permit requirements. Section 14 incorporates by reference all Code of Federal Regulations (CFRs) cited in this chapter, including their Appendices.

Statement added to emphasize that the State is not requiring minor sources of GHGs to comply with State minor source permitting. Some major sources of GHGs may have to comply with Chapter 6, Section 2.

Section 3. Operating permits.

“Final permit” means the version of an operating permit under this section issued by the Division that has completed all review procedures required by Chapter 6, Section 3(d) and Section 3(e).

“Fugitive emissions” means those emissions which could not reasonably pass through a stack, chimney, vent, or other functionally equivalent opening.

“General permit” means an operating permit under this section that meets the requirements of Chapter 6, Section 3(i).

“Greenhouse gases (GHGs)” means the air pollutant defined as the aggregate group of six greenhouse gases: carbon dioxide, nitrous oxide, methane, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride.

Definition of greenhouse gases consistent with federal definition is added.
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“Major source” means any stationary source (or any group of stationary sources that are located on one or more contiguous or adjacent properties, and are under common control of the same person or persons under common control) belonging to a single major industrial grouping and this is described in paragraphs (i), (ii), or (iii) of this definition. For the purpose of defining “major source”, a stationary source or group of stationary sources shall be considered part of a single industrial grouping if all of the pollutant emitting activities at such source or group of sources on contiguous or adjacent properties belong to the same Major Group (i.e., all have the same two-digit code) as described in the Standard Industrial Classification Manual, 1987.

(i) A major source under section 112 of the Act, which is defined as:

(A) For pollutants other than radionuclides, any stationary source or group of stationary sources located within a contiguous area and under common control that emits or has the potential to emit, in the aggregate, 10 tons per year (tpy) or more of any hazardous air pollutant which has been listed pursuant to section 112(b) of the Act, 25 tpy or more of any combination of such hazardous air pollutants, or such lesser quantity as the EPA may establish by rule. Notwithstanding the preceding sentence, emissions from any oil or gas exploration or production well (with its associated equipment) and emissions from any pipeline compressor or pump station shall not be aggregated with emissions from other similar units, whether or not such units are in a contiguous area or under common control, to determine whether such units or stations are major sources; or

(B) For radionuclides, “major source” shall have the meaning specified by the EPA by rule.

(ii) A major stationary source of air pollutants, as defined in section 302 of the Act, that directly emits or has the potential to emit, 100 tpy or more of any air pollutant (including any major source of fugitive emissions of any such pollutant, as determined by rule by the EPA), except that a source that meets this definition for only GHGs and no other air pollutant shall not be required to comply with the provisions of this section unless, on or after July 1, 2011, the stationary source emits or has the potential to emit 100,000 tpy CO₂ equivalent emissions (as defined in this section) and 100 tpy of GHGs on a mass basis. Emissions of air pollutants regulated solely due to

section 112(r) of the Act shall not be considered in determining whether a source is a “major source” for purposes of Chapter 6, Section 3 applicability. The fugitive emissions of a stationary source shall not be considered in determining whether it is a major stationary source unless the source belongs to one of the following categories of stationary sources:

Sources that emit 100,000 tpy CO₂ equivalent emissions and 100 tpy GHGs on a mass basis must address GHGs under the operating permit program. The two methods (CO₂ equivalent and mass-based) produce different totals. The TPY CO₂ equivalent measurement involves multiplying the mass of each of GHGs by separate global warming potential factors to create a metric that better represents the impact of the combined GHGs; it is not a true mass number. EPA also used the traditional straight mass-based total of the GHGs as an additional threshold to determine major source status because all other pollutants follow the mass-based approach. The table below demonstrates how two totals are calculated and how a source can exceed the 100,000 tpy CO₂ equivalent total but not the mass total, and therefore, not be subject to GHG permitting.

| <i>Example Calculation Comparing Mass Ton Totals to CO₂e Ton Totals</i> | | | |
|--|-----------------------|--|---|
| <i>GHG</i> | <i>Mass (tons)</i> | <i>Global Warming Potential (GWP) Multiplier</i> | <i>GWP Total for Pollutant (mass x GWP)</i> |
| <i>Carbon Dioxide</i> | <i>25</i> | <i>1</i> | <i>25</i> |
| <i>Nitrous Oxide</i> | <i>25</i> | <i>310</i> | <i>7,750</i> |
| <i>Methane</i> | <i>20</i> | <i>21</i> | <i>420</i> |
| <i>Hydrofluorocarbons</i> | <i>1</i> | <i>11,700</i> | <i>11,700</i> |
| <i>Perfluorocarbons</i> | <i>2</i> | <i>17,340</i> | <i>34,680</i> |
| <i>Sulfurhexafluoride</i> | <i>2</i> | <i>23,900</i> | <i>47,800</i> |
| <i>Totals</i> | <i>75 tons</i> | <i>NA</i> | <i>102,375 tons</i> |

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(A) Stationary sources listed under the definition for “Major stationary source”, item (a), in Chapter 6, Section 4(a) of the WAQSR; or

(B) Any other stationary source category, which as of August 7, 1980 is being regulated under section 111 or 112 of the Act.

(iii) A major stationary source as defined in part D of Title I of the Act (in reference to sources located in nonattainment areas).

“**Source**” means any stationary source or area source (if subject to a standard, limitation or other requirement under section 111 or 112 of the Act).

“**State**” means any non-Federal permitting authority, including any local agency, interstate association, or statewide program. “State” shall have its conventional meaning where such meaning is clear from the context.

“*Stationary source*” means any building, structure, facility, or installation that emits or may emit any regulated air pollutant or any pollutant listed under section 112(b) of the Act.

“*tpy CO₂ equivalent emissions (CO₂e)*” shall represent an amount of GHGs emitted, and shall be computed by multiplying the mass amount of emissions (tpy), for each of the six greenhouse gases in the pollutant GHGs, by the gas’s associated global warming potential published at Table A-1 to Subpart A of 40 CFR part 98--Global Warming Potentials, and summing the resultant value for each to compute a tpy CO₂e. Prior to July 21, 2014, the mass of the greenhouse gas carbon dioxide shall not include carbon dioxide emissions resulting from the combustion or decomposition of non-fossilized and biodegradable organic material originating from plants, animals, or micro-organisms (including products, by-products, residues and waste from agriculture, forestry and related industries as well as the non-fossilized and biodegradable organic fractions of industrial and municipal wastes, including gases and liquids recovered from the decomposition of non-fossilized and biodegradable organic material). Table A-1 to Subpart A of 40 CFR part 98 is adopted by reference from the Code of Federal Regulations (CFR), revised and published as of July 1, 2011, not including any later amendments. Copies of the Code of Federal Regulations are available for public inspection and copies can be obtained at cost from the Department of Environmental Quality, Division of Air Quality, 122 W. 25th Street, Cheyenne, Wyoming 82002. Copies of the CFRs can also be obtained at cost from Government Institutes, 15200 NBN Way, Building B, Blue Ridge Summit, PA 17214.

This definition describes the process for calculating the CO₂ equivalent totals. This process creates a number that takes into effect the combined impact of each of the six GHGs. They all have different global warming potentials. This number is consistent with the total used in the GHG Reporting Rule and other guidance. This definition also includes a deferral for regulating GHGs from biodegradable organic materials until 2014. Finally, language is included that allows the Division to adopt by reference the subparts from the Code of Federal Regulations cited above.
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Section 4. Prevention of Significant Deterioration.

“*Emissions unit*” means any part of a stationary source that emits or would have the potential to emit any regulated NSR pollutant and includes an electric utility steam generating unit as defined in this section. For purposes of this section, there are two types of emissions units as described in paragraphs (i) and (ii) of this definition.

(i) A new emissions unit is any emissions unit that is (or will be) newly constructed and that has existed for less than 2 years from the date such emissions unit first operated.

(ii) An existing emissions unit is any emissions unit that does not meet the requirements in paragraph (i) of this definition.

“Enforceable” means all limitations and conditions which are enforceable under provisions of the Wyoming Environmental Quality Act and/or are federally enforceable by the Administrator of the EPA, including those requirements developed pursuant to 40 CFR parts 60 and 61, requirements within the State Implementation Plan, and any permit requirements established pursuant to 40 CFR 52.21 or under regulations approved pursuant to 40 CFR 51.18 or 51.166.

“Federal Land Manager” means, with respect to any lands in the United States, the Secretary of the Department with authority over such lands.

“Fugitive emissions” means those emissions which could not reasonably pass through a stack, chimney, vent, or other functionally equivalent opening.

“Greenhouse gases (GHGs)”, the air pollutant defined as the aggregate group of six greenhouse gases: carbon dioxide, nitrous oxide, methane, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride, shall not be subject to regulation except as provided in paragraph (iii) of this definition.

*Definition of greenhouse gases consistent with federal definition is added.
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(i) For purposes of paragraphs (ii) and (iii) of this definition, the term **“tpy CO₂ equivalent emissions (CO₂e)”** shall represent an amount of GHGs emitted, and shall be computed as follows:

(A) Multiplying the mass amount of emissions (tpy), for each of the six greenhouse gases in the pollutant GHGs, by the gas’s associated global warming potential published at Table A-1 to Subpart A of 40 CFR part 98--Global Warming Potentials. Table A-1 to Subpart A of 40 CFR part 98 is adopted by reference from the Code of Federal Regulations (CFR), revised and published as of July 1, 2011, not including any later amendments. Copies of the Code of Federal Regulations are available for public inspection and copies can be obtained at cost from the Department of Environmental Quality, Division of Air Quality, 122 W. 25th Street, Cheyenne, Wyoming 82002. Copies of the CFRs can also be obtained at cost from Government Institutes, 15200 NBN Way, Building B, Blue Ridge Summit, PA 17214.

(B) Sum the resultant value from paragraph (i)(A) of this definition for each gas to compute a tpy CO₂e.

This definition describes the process for calculating the CO₂ equivalent totals. This process creates a number that takes into effect the combined impact of each of the six GHGs. They all have different global warming potentials. This number is consistent

with the total used in the GHG Reporting Rule and other guidance. Finally, language is included that allows the Division to adopt by reference the subparts from the Code of Federal Regulations cited above.

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(C) Prior to July 21, 2014, the mass of the greenhouse gas carbon dioxide shall not include carbon dioxide emissions resulting from the combustion or decomposition of non-fossilized and biodegradable organic material originating from plants, animals, or micro-organisms (including products, by-products, residues and waste from agriculture, forestry and related industries as well as the non-fossilized and biodegradable organic fractions of industrial and municipal wastes, including gases and liquids recovered from the decomposition of non-fossilized and biodegradable organic material).

This definition also includes a deferral for regulating GHGs from biodegradable organic materials until 2014.

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(ii) The term “emissions increase” as used in paragraph (iii) of this definition shall mean that both a significant emissions increase (as calculated using the procedures in (b)(i)(J) of this section) and a significant net emissions increase (as “net emissions increase” and “significant” are defined in this section) occur. For the pollutant GHGs, an emissions increase shall be based on tpy CO₂e, and shall be calculated assuming the pollutant GHGs is a regulated NSR pollutant, and “significant” is defined as 75,000 tpy CO₂e instead of applying the provisions in paragraphs (ii) or (iii) of the definition of “significant” in this section.

This was added to clearly define what an emission increase and significant emission increase means for GHGs, which is different from significant emission increase for criteria pollutants.

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(iii) The pollutant GHGs is subject to regulation if the stationary source is:

This section lays out the different ways that a stationary source can be subject to PSD permitting for GHGs.

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(A) A new major stationary source for a regulated NSR pollutant that is not GHGs, and also will emit or will have the potential to emit 75,000 tpy CO₂e or more; or

The first type of source is a new source that will be major for a more typical pollutant (such as 300 tons of NO_x or SO₂), but also it will emit at least 75,000 tpy CO₂e.
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(B) An existing major stationary source for a regulated NSR pollutant that is not GHGs, and also will have an emissions increase of a regulated NSR pollutant, and an emissions increase of 75,000 tpy CO₂e or more; or,

The second type of source is an existing source that is already major for the more typical pollutant (300 tons of NO_x or SO₂) that is wanting to permit an emissions increase for the more typical pollutant and a GHG emissions increase of at least 75,000 tpy CO₂e.
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(C) A new stationary source that will emit or have the potential to emit 100,000 tpy CO₂e; or

The third type of source is a new source that will have the potential to emit GHGs at or above 100,000 tpy CO₂e.
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(D) An existing stationary source that emits or has the potential to emit 100,000 tpy CO₂e, 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 CO₂e or more.

The fourth type of source is an existing source that is already emitting GHGs or has the potential to emit 100,000 tpy CO₂e and is wanting to permit an emissions increase of GHGs at or above 75,000 tpy CO₂e.
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“High terrain” means any area having an elevation 900 feet or more above the base of the stack of a source.

“Indian Governing Body” means the governing body of any tribe, band, or group of Indians subject to the jurisdiction of the United States and recognized by the United States as possessing power of self-Government.

“Indian Reservation” means any federally recognized reservation established by treaty, agreement, executive order, or act of Congress.

“Innovative control technology” means any system of air pollution control that has not been adequately demonstrated in practice, but would have a substantial likelihood of achieving greater continuous emissions reduction than any control system in current practice or of achieving at least comparable reductions at lower cost in terms of energy, economics, or non air quality environmental impacts.

“Lowest achievable emission rate (LAER)” means, for any source, the more stringent rate of emissions based on the following:

(i) The most stringent emissions limitation which is contained in the implementation plan of any State for such class or category of stationary source, unless the owner or operator of the proposed stationary source demonstrates that such limitations are not achievable; or

(ii) The most stringent emissions limitation which is achieved in practice by such class or category of stationary sources. This limitation, when applied to a modification, means the lowest achievable emissions rate for the new or modified emissions units within a stationary source. In no event shall the application of the term permit a proposed new or modified stationary source to emit any pollutant in excess of the amount allowable under an applicable new source standard of performance.

“Low terrain” means any area other than high terrain.

“Major source baseline date” means:

(i) In the case of PM₁₀ and sulfur dioxide, January 6, 1975; and

(ii) In the case of nitrogen dioxide, February 8, 1988.

(iii) In the case of PM_{2.5}, October 20, 2010.

“Major stationary source” means (a) any of the following stationary sources of air pollutants which emit, or have the potential to emit, one hundred tons per year or more of any air pollutant for which standards are established under these Standards and Regulations or under the Federal Clean Air Act, except for sources of GHGs addressed separately under (e) of this definition: fossil fuel-fired steam electric plants of more than two hundred and fifty million British thermal units per hour heat input, coal cleaning plants (with thermal dryers), kraft pulp mills, Portland Cement plants, primary zinc smelters, iron and steel mill plants, primary aluminum ore reduction plants (with thermal dryers), primary copper smelters, municipal incinerators capable of charging more than two hundred and fifty tons of refuse per day, hydrofluoric, sulfuric, and nitric acid plants, petroleum refineries, lime plants, phosphate rock processing plants, coke oven batteries, sulfur recovery plants, carbon black plants (furnace process), primary lead smelters, fuel conversion plants, sintering plants, secondary metal production plants, chemical process plants (which does not include ethanol production facilities that produce ethanol by natural fermentation included in NAICS codes 325193 or 312140), fossil fuel boilers (or combinations thereof) of more than two hundred and fifty million British thermal units per hour heat input, petroleum storage and transfer plants with a capacity exceeding three hundred thousand barrels, taconite ore processing plants, glass fiber processing plants, charcoal production plants. (b) Such term also includes any stationary source which

emits, or has the potential to emit, two hundred and fifty tons per year or more of any air pollutant for which standards are established under these Standards and Regulations or under the Federal Clean Air Act, except for sources of GHGs addressed separately under (e) of this definition. (c) Such term also includes any physical change that would occur at a stationary source not otherwise qualifying under this definition if the change would constitute a major stationary source by itself. (d) A major source which is major for volatile organic compounds or NO_x is considered to be major for ozone. (e) Such term also includes any source of greenhouse gases as defined in Chapter 6, Section 4(a), but only if: the greenhouse gases are subject to regulation under subsection (iii) of that definition, and the source's potential to emit greenhouse gases exceeds 100 tpy on a mass basis if listed under (a) of this definition of "Major stationary source" or 250 tpy on a mass basis if listed under (b) of this definition of "Major stationary source."

Language was added in this section to make sure that sources of GHGs are not treated like sources of criteria pollutants for purposes of PSD.

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"Minor source baseline date" means the earliest date after August 7, 1977 for PM₁₀ and sulfur dioxide, and after February 8, 1988 for nitrogen oxides, and after October 20, 2011 for PM_{2.5} on which a major stationary source or major modification submits a complete permit application under Chapter 6, Section 4(b) or under the Federal Clean Air Act.

(i) The minor source baseline date for sulfur dioxide for the State of Wyoming is February 2, 1978.

(ii) The minor source baseline date for nitrogen oxides for the State of Wyoming is February 26, 1988.

Section 14. **Incorporation by reference.**

(a) Code of Federal Regulations (CFR). Except as otherwise noted, All Code of Federal Regulations (CFRs) cited in this chapter, including their Appendices, revised and published as of July 1, 2010, not including any later amendments, are incorporated by reference. Copies of the Code of Federal Regulations are available for public inspection and copies can be obtained at cost from the Department of Environmental Quality, Division of Air Quality, 122 W. 25th Street, Cheyenne, Wyoming 82002. Copies of the CFRs can also be obtained at cost from Government Institutes, 15200 NBN Way, Building B, Blue Ridge Summit, PA 17214.

A temporary phrase has been inserted to allow adoption by reference of GHG-related regulations that came after July 1, 2010. Once the GHG regulations become fully adopted by the State, this phrase can be removed.

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