



## New Source Review (NSR)



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# Fact Sheet -- Proposed Rule: Prevention of Significant Deterioration and Title V Greenhouse Gas Tailoring Rule

## ACTION

- On September 30, 2009, EPA announced a proposal that is focused on large facilities emitting over 25,000 tons of greenhouse gases a year. These facilities would be required to obtain permits that would demonstrate they are using the best practices and technologies to minimize GHG emissions.
- The rule proposes new thresholds for greenhouse gas emissions (GHG) that define when Clean Air Act (CAA) permits under the New Source Review (NSR) and title V operating permits programs would be required for new or existing industrial facilities.
- The proposed thresholds would “tailor” the permit programs to limit which facilities would be required to obtain NSR and title V permits and would cover nearly 70 percent of the national GHG emissions that come from stationary sources, including those from the nation’s largest emitters—including power plants, refineries, and cement production facilities.
- Small farms, restaurants and many other types of small facilities would not be subject to these permitting programs.
- This proposal addresses the emissions of the group of six greenhouse gases (GHGs) that may be covered by an EPA rule controlling or limiting their emissions:
  1. Carbon dioxide (CO<sub>2</sub>)
  2. Methane (CH<sub>4</sub>)
  3. Nitrous oxide (N<sub>2</sub>O)
  4. Hydrofluorocarbons (HFCs)
  5. Perfluorocarbons (PFCs)
  6. Sulfur hexafluoride (SF<sub>6</sub>)
- EPA is proposing carbon dioxide equivalent (CO<sub>2</sub>e) as the preferred metric for determining GHG emissions rates for any combination of these six GHGs, but we are requesting comment in this proposal on alternatives. Emissions of greenhouse gases are typically expressed in a common metric, so that their impacts can be directly compared, as some gases are more potent (have a higher global warming potential or GWP) than others. The international standard practice is to express GHGs in CO<sub>2</sub>e. Emissions of gases other than CO<sub>2</sub> are translated into CO<sub>2</sub> equivalents by using the gases’ global warming potentials.
- Under the Title V operating permits program, EPA is proposing a major source emissions applicability threshold of 25,000 tons per year (tpy) of carbon dioxide CO<sub>2</sub>e for existing industrial facilities. Facilities with GHG emissions below this threshold would not be required to obtain an operating permit.
- Under the Prevention of Significant Deterioration (PSD) portion of NSR—which is a permit program designed to minimize emissions from new sources and existing sources making major modifications—EPA is proposing a:
  1. Major stationary source threshold of 25,000 tpy CO<sub>2</sub>e. This threshold level would be used to determine if a new facility or a major modification at an existing facility would trigger PSD permitting requirements.
  2. Significance level between 10,000 and 25,000 tpy CO<sub>2</sub>e. Existing major sources making modifications that result in an increase of emissions above the significance level would be required to obtain a PSD permit. EPA is requesting comment on a range of values in this proposal, with the intent of selecting a single value for the GHG significance level.

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- Operating permits contain air emissions control requirements that apply to a facility, such as national emissions standards for hazardous air pollutants, new source performance standards, or best available control technologies required by a PSD permit. In general, since there are currently no such air emission control requirements, existing facilities with GHG emissions greater than 25,000 tons per year that already have operating permits would not need to immediately revise them. At the end of a 5-year period when the operating permit must be renewed, these facilities would be required to include estimates of their GHG emissions in their permit applications. Facilities may use the same data reported to EPA under the Mandatory Reporting Rule to fulfill this requirement.
- New or modified facilities with GHG emissions that trigger PSD permitting requirements would need to apply for a revision to their operating permits to incorporate the best available control technologies and energy efficiency measures to minimize GHG emissions. These controls are determined on a case-by-case basis during the PSD process.
- Under the proposed emissions thresholds, EPA estimates that 400 new sources and modifications would be subject to PSD review each year for GHG emissions. Less than 100 of these would be newly subject to PSD. In total, approximately 14,000 large sources would need to obtain operating permits for GHG emissions under the operating permits program. About 3,000 of these sources would be newly subject to CAA operating permit requirements as a result of this action. The majority of these sources are expected to be municipal solid waste landfills.
- Municipal solid waste landfills are the second largest source of human-related methane emissions in the United States, accounting for approximately 23 percent of these emissions in 2007. Landfill methane, a powerful greenhouse gas, can be captured, converted, and used as an energy source, reducing emissions and providing an important renewable energy source.
- The current thresholds for criteria pollutants such as lead, sulfur dioxide and nitrogen dioxide, are 100 and 250 tons per year (tpy). These thresholds are in effect now, and are appropriate for criteria pollutants. However, they are not feasible for GHGs. Without the tailoring rule, these lower thresholds would take effect automatically for GHGs with the adoption of any EPA rule that controls or limits GHG emissions.
- The proposed thresholds would continue to preserve the ability of the NSR and title V operating permit programs to achieve and maintain public health and environmental protection goals while avoiding an administrative burden that would prevent state and local permitting authorities from processing CAA permits efficiently.
- EPA will accept comment on this proposal for 60 days after publication in the *Federal Register*.

## NEXT STEPS

- The final emissions thresholds for GHG emissions under the federal PSD and operating permits programs will take effect immediately upon promulgation of the final rule. At that time, EPA will put the new thresholds into effect in state, local and tribal agency programs that run PSD and Title V operating programs under EPA approval. Those agencies will continue to have the option to seek EPA approval for lower thresholds if they demonstrate that they can adequately implement the PSD program at the lower thresholds.
- EPA intends to evaluate ways to streamline the process for identifying GHG emissions control requirements and issuing permits. This will reduce costs and increase efficiency for both sources and for state permitting agencies, which in most cases are responsible for issuing the permits.
- Under the proposal, EPA must also re-evaluate the final GHG emissions thresholds after an initial phase, during which PSD and Title V permitting authorities will gain experience in issuing permits to GHG sources. By the end of the first phase, which is proposed to last five years, the Agency is proposing to complete a study to evaluate whether it is administratively feasible for PSD and Title V permitting authorities to adequately administer their programs at lower GHG thresholds.
- After reviewing the study results, EPA will complete a follow-on regulatory action, within one year (six years following promulgation of this rule). The follow-on rule will establish

thresholds during the second phase, by either:

1. Confirming the need to retain the GHG permitting thresholds for PSD and/or Title V at the levels promulgated with this rulemaking; or
  2. Establishing different GHG threshold levels that more accurately reflect the administrative capabilities of permitting authorities to address GHGs.
- EPA believes that a five-year duration for the first phase is appropriate but the Agency requests comment on alternative time periods.
  - EPA also plans to develop supporting information to assist permitting authorities as they begin to address permitting actions for GHG emissions for the first time. The guidance would first cover source categories that typically emit GHGs at levels exceeding the thresholds established through this rulemaking.
  - Although EPA has not yet identified specific source categories, the Agency plans to develop sector- and source-specific guidance that would help permitting authorities and affected sources better understand GHG emissions for the selected source categories, methods for estimating those emissions, control strategies for GHG emissions, and available GHG measurement and monitoring techniques.
  - This guidance also will include approaches for making Best Available Control Technology determinations as required for a PSD permit.

## BACKGROUND

- On April 2, 2007, the Supreme Court found that GHGs, including carbon dioxide, are air pollutants covered by the CAA. *Massachusetts v. EPA*, 549 U.S. 497 (2007).
- The Supreme Court found that EPA was required to determine whether or not emissions of GHGs from new motor vehicles cause or contribute to air pollution which may reasonably be anticipated to endanger public health or welfare, or whether the science is too uncertain to make a reasoned decision. In April 2009, EPA responded to the Court by proposing a finding that greenhouse gases contribute to air pollution that may endanger public health or welfare.
- EPA expects soon to take final action on the finding. The agency also expects to issue regulations under the Clean Air Act to control GHG emissions from light duty vehicles (proposal signed 9/15/09). Such an action will trigger Clean Air Act permitting requirements under the Prevention of Significant Deterioration (PSD) and Operating Permit (title V) programs for GHG emissions. This will be the first time GHGs would be subject to either of these Clean Air Act permitting programs.
- Congress established the NSR program as part of the 1977 Clean Air Act Amendments and modified it in the 1990 Amendments. NSR is a preconstruction permitting program that serves two important purposes:
  1. Ensures the maintenance of air quality standards or, where there are not air quality standards, it ensures that air quality does not significantly worsen when factories, industrial boilers, and power plants are modified or added. In areas that do not meet the national ambient air quality standards, NSR assures that new emissions do not slow progress toward cleaner air. In areas that meet the standards, especially pristine areas like national parks, NSR assures that new emissions fall within air quality standards.
  2. Ensures that state-of-the-art control technology is installed at new plants or at existing plants that are undergoing a major modification.
- New major stationary sources and major modifications at existing major stationary sources that meet emissions applicability thresholds outlined in the Clean Air Act and in existing PSD regulations must obtain a PSD permit outlining how they will control emissions. The permit requires facilities to apply best available control technology (BACT), which is determined on a case-by-case basis taking into account, among other factors, the cost and effectiveness of the control.
- The Clean Air Act Amendments of 1990 required that all states develop operating permit programs. Under these programs, known as Title V operating permits programs, every major industrial source of air pollution (and some other sources) must obtain an operating permit. The permits, which are reviewed every five years, contain all air emission control

requirements that apply to the facility, including the requirements established as part of the preconstruction permitting process.

## HOW TO COMMENT

- EPA will accept comment on the proposal for 60 days after publication in the Federal Register. Comments, identified by Docket ID No. EPA-HQ-OAR-2009-0517, may be submitted by one of the following methods:
  - [www.regulations.gov](http://www.regulations.gov): Follow the online instructions for submitting comments.
  - E-mail: Comments may be sent by electronic mail (e-mail) to [a-and-r-docket@epa.gov](mailto:a-and-r-docket@epa.gov).
  - Fax: Fax your comments to: (202) 566-9744.
  - Mail: Send your comments to: EPA Docket Center, EPA West (Air Docket), Attention Docket ID No. EPA-HQ-OAR-2009-0517, U.S. Environmental Protection Agency, Mailcode: 2822T, 1200 Pennsylvania Avenue, NW, Washington, DC 20460.
  - Hand Delivery or Courier: Deliver your comments to: U.S. Environmental Protection Agency, EPA West (Air Docket), 1301 Constitution Avenue, Northwest, Room 3334, Washington, DC 20004, Attention Docket ID No. EPA-HQ-OAR-2009-0517. Such deliveries are only accepted during the Docket's normal hours of operation, and special arrangements should be made for deliveries of boxed information

## FOR MORE INFORMATION

- To download a copy of this notice, go to EPA's Web site at: <http://www.epa.gov/nsr>.
- Today's proposed action and other background information are also available electronically at <http://www.regulations.gov>, EPA's electronic public docket and comment system. The docket number for this action is Docket ID No. EPA-HQ-OAR-2009-0517.
- For more information on the final rule, contact Joseph Mangino at (919) 541-9778 or [mangino.joseph@epa.gov](mailto:mangino.joseph@epa.gov).

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Last updated on Wednesday, September 30th, 2009.  
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