

## **Final Rule: Prevention of Significant Deterioration and Title V Greenhouse Gas Tailoring Rule**

### **FACT SHEET**

#### **ACTION**

- On May 13, 2010, the U.S. Environmental Protection Agency (EPA) issued a final rule that establishes a common sense approach to addressing greenhouse gas emissions from stationary sources under the Clean Air Act (CAA) permitting programs. This final rule sets thresholds for greenhouse gas (GHG) emissions that define when permits under the New Source Review Prevention of Significant Deterioration (PSD) and title V Operating Permit programs are required for new and existing industrial facilities.
- This final rule “tailors” the requirements of these CAA permitting programs to limit which facilities will be required to obtain PSD and title V permits. Facilities responsible for nearly 70 percent of the national GHG emissions from stationary sources will be subject to permitting requirements under this rule. This includes the nation’s largest GHG emitters—power plants, refineries, and cement production facilities.
- Emissions from small farms, restaurants, and all but the very largest commercial facilities will not be covered by these programs at this time.
- The rule establishes a schedule that will initially focus CAA permitting programs on the largest sources with the most CAA permitting experience. The rule then expands to cover the largest sources of GHG that may not have been previously covered by the CAA for other pollutants. Finally, it describes EPA plans for any additional steps in this process.
- The CAA permitting program emissions thresholds for criteria pollutants such as lead, sulfur dioxide and nitrogen dioxide, are 100 and 250 tons per year (tpy). While these thresholds are appropriate for criteria pollutants, they are not feasible for GHGs because GHGs are emitted in much higher volumes.
- Without this tailoring rule, the lower emissions thresholds would take effect automatically for GHGs on January 2, 2011. PSD and title V requirements at these thresholds would lead to dramatic increases in the number of required permits —tens of thousands of PSD permits and millions of title V permits. State, local, and tribal permitting authorities would be overwhelmed and the programs’ abilities to manage air quality would be severely impaired.
- EPA will phase in the CAA permitting requirements for GHGs in two initial steps.

### **Step 1. (January 2, 2011 –June 30, 2011)**

- Only sources currently subject to the PSD permitting program (i.e., those that are newly-constructed or modified in a way that significantly increases emissions of a pollutant other than GHGs) would be subject to permitting requirements for their GHG emissions under PSD.
- For these projects, only GHG increases of 75,000 tpy or more of total GHG, on a CO<sub>2</sub>e basis, would need to determine the Best Available Control Technology (BACT) for their GHG emissions.
- Similarly for the operating permit program, only sources currently subject to the program (i.e., newly constructed or existing major sources for a pollutant other than GHGs) would be subject to title V requirements for GHG.
- During this time, no sources would be subject to Clean Air Act permitting requirements due solely to GHG emissions.

### **Step 2. (July 1, 2011 to June 30, 2013)**

- Step 2 will build on Step 1. In this phase, PSD permitting requirements will cover for the first time new construction projects that emit GHG emissions of at least 100,000 tpy even if they do not exceed the permitting thresholds for any other pollutant. Modifications at existing facilities that increase GHG emissions by at least 75,000 tpy will be subject to permitting requirements, even if they do not significantly increase emissions of any other pollutant.
- In Step 2, operating permit requirements will, for the first time, apply to sources based on their GHG emissions even if they would not apply based on emissions of any other pollutant. Facilities that emit at least 100,000 tpy CO<sub>2</sub>e will be subject to title V permitting requirements.
- EPA estimates that about 550 sources will need to obtain title V permits for the first time due to their GHG emissions. The majority of these newly permitted sources will likely be solid waste landfills and industrial manufacturers. There will be approximately 900 additional PSD permitting actions each year triggered by increases in GHG emissions from new and modified emission sources.

### **Additional Step 3 Outlined in this Rule**

- In this final rule, EPA commits to undertake another rulemaking, to begin in 2011 and conclude no later than July 1, 2012. That action will take comment on an additional step for phasing in GHG permitting, and may discuss whether certain smaller sources can be permanently excluded from permitting. EPA also plans to explore a range of opportunities

for streamlining future GHG permitting that have the potential to significantly reduce permitting burdens. EPA will propose viable streamlining options in the “Step 3” rulemaking.

- Step three, if established, will not require permitting for sources with greenhouse gas emissions below 50,000 tpy.
- EPA will not require permits for smaller sources in step three or through any other action until at least April 30, 2016.

### **Other Steps Outlined in this Rule**

- By the end of April 2015, EPA will complete a study on remaining GHG permitting burdens that would exist if we applied the program to smaller sources. We will consider the results of the study to complete a rule by April 30, 2016 further addressing Clean Air Act permitting for these facilities. In that rule we may decide that successful streamlining will allow us to phase in more sources, but we may also decide that certain smaller sources need to be permanently excluded from permitting.

### **Implementation**

- Step 1 of this final rule will take effect on January 2, 2011. The final rule asks states to inform EPA whether they must make rule changes to implement the new GHG emissions thresholds, and when such changes will be adopted. If there are cases where this cannot happen by January 2, 2011, EPA will take appropriate action to ensure that the existing CAA permitting rules do not apply to sources excluded by today’s rule.
- EPA also plans to develop supporting guidance and other information to assist permitting authorities as they begin to address permitting actions for GHG emissions for the first time. EPA will be actively working with states on technical information and data needs related to identifying BACT requirements for PSD permits. The guidance would first cover source categories that typically emit GHGs at levels exceeding the thresholds established through this rulemaking.

### **Covered Pollutants**

- On April 1, 2010, EPA and the Department of Transportation’s National Highway Safety Administration issued the first national rule limiting GHG emissions from cars and light trucks. The requirements of the GHG light duty vehicle rule take effect on January 2, 2011, the earliest date that 2012 vehicles meeting the standards can be sold in the United States. On that date, CAA permitting program requirements will apply to stationary sources of these pollutants.

- The final rule addresses emissions of a group of six GHGs:
  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>)
- Some of these GHGs have a higher global warming potential than others. To address these differences, the international standard practice is to express GHGs in carbon dioxide equivalents (CO<sub>2</sub>e). Emissions of gases other than CO<sub>2</sub> are translated into CO<sub>2</sub>e by using the gases' global warming potentials. Under this rule, EPA is using CO<sub>2</sub>e as the metric for determining whether sources are covered by permitting programs. Total GHG emissions will be calculated by summing the CO<sub>2</sub>e emissions of all of the six constituent GHGs.

## **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 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. On December 7, 2009, the Administrator signed two distinct findings regarding GHG under section 202(a) of the CAA:
  - **Endangerment Finding:** The Administrator found that the current and projected atmospheric concentrations of the six, key, well-mixed GHGs— CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, HFCs, PFCs, and SF<sub>6</sub> --threaten the public health and welfare of current and future generations.
  - **Cause or Contribute Finding:** The Administrator found that the combined emissions of these well-mixed GHGs from new motor vehicles and new motor vehicle engines contribute to the greenhouse gas pollution which threatens public health and welfare.
- These findings, which were published December 15, 2009, do not impose any requirements on industry or other entities. However, they were a prerequisite to finalizing the GHG standards for light-duty vehicles.
- On December 18, 2008, EPA issued a memorandum, "EPA's Interpretation of Regulations that Determine Pollutants Covered by Federal Prevention of Significant Deterioration (PSD) Permit Program" (known as the "Johnson Memo" or the "PSD Interpretive Memo").

Whether a pollutant is “subject to regulation” is important for the purposes of determining whether it is covered under the CAA permitting programs. The PSD Interpretive Memo established that a pollutant is “subject to regulation” only if it is subject to either a provision in the CAA or regulation adopted by EPA under the CAA that requires actual control of emissions of that pollutant. On February 17, 2009, EPA granted a petition for reconsideration of this memorandum.

- On March 29, 2010, the Administrator signed a notice conveying the agency’s decision to continue applying the PSD Interpretive Memo’s interpretation of “subject to regulation.” EPA concluded that the “actual control interpretation” is the most appropriate interpretation. The agency established that CAA permitting requirements apply to a newly regulated pollutant at the time a regulatory requirement to control emissions of that pollutant “takes effect” (rather than upon promulgation or the legal effective date of the regulation containing such a requirement). Based on the anticipated promulgation of the light duty vehicle rule, the notice stated that the GHG requirements of the vehicle rule would trigger CAA permitting requirements for stationary sources on January 2, 2011.
- On April 1, 2010, EPA finalized the light duty vehicle rule controlling GHG emissions. This rule confirmed that January 2, 2011 is the earliest date that a 2012 model year vehicle meeting these rule requirements may be sold in the United States.
- 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 CAA and in existing PSD regulations must obtain a PSD permit outlining how they will control emissions. The permit requires facilities to apply BACT, which is determined on a case-by-case basis taking into account, among other factors, the cost and effectiveness of the control.
- The 1990 Amendments 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 5 years, contain all air emission control requirements that apply to the facility, including the requirements established as part of the preconstruction permitting process.

### **FOR MORE INFORMATION**

- To download a copy of this notice, go to EPA's Web site at: <http://www.epa.gov/nsr>.
- Today's final 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).