Issue Brief: What States Should Know About EPA Regulation of Greenhouse Gas Emissions

In the past year, the Environmental Protection Agency (EPA) has taken a number of steps to monitor and regulate greenhouse gas (GHG) emissions under the Clean Air Act (CAA) and other existing authorities. This brief summarizes recent regulatory actions, notes potential obstacles to EPA's efforts, and discusses the role that states will play in the regulatory programs under development.

Summary of EPA Actions

EPA regulation of GHG emissions was triggered by the 2007 U.S. Supreme Court decision in *Massachusetts v. EPA*,[1] which held that greenhouse gases (GHGs) fit the definition of "air pollutant" under the CAA and that it must regulate GHG emissions from new motor vehicles unless it finds that they are not anticipated to endanger public health or welfare, or that the science is too uncertain to make a reasoned decision. EPA has since found that such emissions do endanger public health and welfare (*see* below) and has taken the following actions:

Reporting Rule:[2] Issued on September 30, 2009, this rulemaking requires reporting of GHG emissions from all sectors of the economy. The rule went into effect on December 29, 2009, and applies to fossil fuel industrial gas suppliers, direct GHG emitters, and manufacturers of heavy-duty and off-road vehicles and engines. It includes reporting standards for 31 source types covering approximately 10,000 reporting facilities and approximately 85% of total domestic GHG emissions. EPA issued the rule under its authorities provided in the FY08 Omnibus Appropriations Bill. Unlike the balance of EPA's regulatory actions addressing GHG emissions, it is not dependent on either *Massachusetts v. EPA* or the Endangerment Finding.

Endangerment Finding:[3] On December 7, 2009, EPA Administrator Lisa P. Jackson made two distinct findings: (1) that the current and projected concentrations of carbon dioxide (CO_2) and five other key greenhouse gases threaten the public health and welfare; and (2) that the combined emissions of these well-mixed GHGs from new motor vehicles and new motor vehicle engines contribute to the GHG pollution that threatens public health and welfare. While these findings do not themselves impose any regulatory requirements, they establish the legal basis for other EPA regulations of GHG emissions.

"Subject to Regulation" Memo:[4] On April 2, 2010, EPA affirmed its existing interpretation[5] of the point in time at which a pollutant becomes "subject to regulation" and would therefore be regulated under the CAA's New Source Review (NSR) program for stationary sources. Under EPA's interpretation, a pollutant does not become regulated until a control requirement in an EPA rule regulating that pollutant takes effect. In the memo, EPA confirmed that GHGs would become "subject to regulation" on January 2, 2011, when the Light Duty Vehicle Rule (see below) took effect, and not on the earlier dates on which either the Endangerment Finding or the final Light Duty Vehicle Rule were issued.

[1] Massachusetts v. EPA, 549 U.S. 497 (2007).
[2] Mandatory Reporting of Greenhouse Gases, 74 Fed. Reg. 56,373 (Sept. 30, 2009).
[3] Endangerment and Cause or Contribute Findings for GHGs Under Section 202(a), 74 Fed. Reg. 66,496 (Dec. 15, 2009).
[4] Reconsideration of Interpretation of Regulations That Determine Pollutants Covered by Clean Air Act Permitting Programs, 75 Fed. Reg. 17,004 (final reconsideration action April 2, 2010).
[5] Memorandum from Stephen Johnson, EPA Administrator, to EPA Regional Administrators, RE: EPA's Interpretation of Regulations that Determine Pollutants Covered by Federal Prevention of Significant Deterioration (PSD) Permit Program (Dec. 18, 2008).

Tailoring Rule (Regulation of Stationary Sources through New Source Review):[6] Issued on May 13, 2010, this rulemaking was designed to phase in the application of GHG permitting requirements under the PSD and Title V programs to new and modified stationary sources. The PSD program requires covered new or modified stationary sources to apply "best available control technology" to reduce emissions, while Title V requires subjected emitters to hold general operating permits. Without this rulemaking, the language of the CAA would require PSD and Title V regulations to apply to stationary sources emitting 100 or 250 tons per year (tpy) of GHGs. EPA determined that such low thresholds would have imposed undue costs on small sources and overwhelmed the resources of permitting authorities. Under the rulemaking, regulation of GHG emissions under the CAA is phased in, beginning with the largest emitters. In the first stage, beginning on January 2, 2011, PSD or Title V requirements will apply to sources' GHG emissions only if the sources are currently subject to PSD or Title V requirements due to their non-GHG pollutants, and only sources increasing GHG emissions by over 75,000 tpy would be required to apply BACT. The second step, beginning on July 1, 2011, will subject all new sources over 100,000 tpy and existing sources over 100,000 tpy undergoing modifications that increase emissions by over 75,000 tpy to Title V and PSD requirements. Existing sources over 100,000 tpy not undergoing major modifications and not previously subject to Title V will also become subject to Title V. EPA also indicated that it would continue phasing in regulations, with a new rulemaking for a "third step" affecting smaller sources beginning in 2011 and regulations expected to take effect in July 2013. The Tailoring Rule also established, however, that no sources with emissions of less than 50,000 tpy would be regulated before 2016.[7]

States generally implement PSD regulations; however as some states did not have the authority to implement PSD regulations for GHGs, EPA has established Federal Implementation Plans for eight states. *See* below on page 5.

GHG Emissions & Fuel Economy Standards for Vehicles: EPA and the National Highway Transportation Safety Administration (NHTSA) issued a joint rule on May 7, 2010, finalizing GHG emissions standards under the CAA and Corporate Average Fuel Economy (CAFE) standards under the Energy Policy and Conservation Act**.**[8] These standards apply to passenger cars, light-duty trucks, and medium-duty passenger vehicles, covering model years 2012 through 2016. The joint standards will increase in stringency from 2012 to 2016, requiring vehicle fleets to meet a combined manufacturer's average CO_2 emissions level of 250 grams/mile and a combined average fuel economy of 34.1 mpg in model year 2016. The standards were developed with the input of the state of California, which has unique authority to implement more stringent emissions standards under the CAA, as well as "Section 177" states that have adopted California's standards. California subsequently amended its regulations to allow compliance with the harmonized federal program to serve as compliance under its regulatory program,[9] effectively creating a single set of standards for the entire nation.

EPA and NHTSA have also issued notice that they intend to extend joint standards for light duty vehicles to model years 2017-2025. The agencies are continuing to work with the state of California with the hope of again creating a harmonized set of regulations, and are considering standards that would require a fleet average of between 47 to 62 mpg in 2025.[10] A proposed rule is scheduled to be issued by September 30, 2011, and a final rule by July 31, 2012. Similarly, EPA and NHTSA proposed first-ever fuel-economy and GHG emissions standards for heavy duty vehicles on November 30, 2010, and aim to issue a final rule by July 30, 2011.[11]

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[6] Prevention of Significant Deterioration and Title V Greenhouse Gas Tailoring Rule, 75 Fed. Reg. 31,514 (May 13, 2010).
[7] *Id.*
[8] Light-Duty Vehicle Greenhouse Gas Emission Standards and Corporate Average Fuel Economy Standards, 75 Fed. Reg. 25,324 (May 7, 2010).
[9] California Air Resources Board, Final Regulatory Order, Rulemaking to Consider Proposed Amendments to New Passenger Motor Vehicle Greenhouse Gas Emissions Standards for Model Years 2012-2016 Based on Federal Greenhouse Gas Emissions Standards (April 1, 2010), *available at* http://www.arb.ca.gov/regact/2010/ghgpv10/ghgpv10.htm.
[10] 2017 and Later Model Year Light-Duty Vehicle GHG Emissions and CAFE Standards: Supplemental Notice of Intent, 75 Fed. Reg. 76,337 (supplemental notice of intent, Dec. 8, 2010); 2017 and Later Model Year Light Duty Vehicle GHG Emissions and CAFÉ Standards; Notice of Intent, 75 Fed. Reg. 62,739 (notice of intent, Oct. 13, 2010).
[11] Greenhouse Gas Emissions Standards and Fuel Efficiency Standards for Medium- and Heavy-Duty Engines and Vehicles, 75 Fed. Reg. 74,152 (proposed Nov. 30, 2010).

Regulation of Stationary Sources through Section 111 Performance Standards: On December 23, 2010, EPA announced it had entered into proposed settlement agreements with states and environmental organizations in which it agreed to regulate GHGs from fossil-fuel fired power plants and refineries under its CAA Section 111 authority to set performance standards.[12] Under this authority EPA may set pollutant emissions limitations directly for categories of *new* and *modified* stationary sources that it has listed, including most categories of industrial emitters. EPA may also establish a state-federal process, "similar" to the NAAQS-SIP process which provides a degree of flexibility to states,[13] for regulating *existing* sources in those same source categories. In the announced settlement agreements EPA commits to issue proposed new source performance standards for new and modified fossil-fueled power plants and emissions guidelines for existing power plants by July 26, 2011, and final regulations by May 26, 2012; EPA similarly agrees to propose new source performance standards for new and modified refineries and emissions guidelines for existing refineries by December 10, 2011, and final regulations by November 10, 2012. Current EPA regulations under Section 111(d) allow significant flexibility in state plans, including the use of emissions allowance mechanisms.[14] EPA is scheduled to review and potentially revise standards for other source categories regulated under Sec. 111, however the agency has indicated that power plants and refineries are the priority in 2011.

Other Actions: EPA is scheduled to take a number of other actions in the near future that could affect GHG emissions through new controls on conventional pollutants. EPA is in the process of proposing or revising standards for hazardous air pollutants emitted by certain source categories under CAA Sec. 112 authority. Although GHGs are not a hazardous air pollutant, such standards are required to be set at the stringent level of "Maximum Achievable Control Technology" (MACT) and application of new hazardous pollutant standards could result in reductions of GHGs. EPA is under several court-ordered deadlines to promulgate hazardous air pollutant standards for certain categories of stationary sources. In particular, EPA is under a court-ordered deadline to propose mercury emissions standards for power plants by March 16, 2011;[15] the agency is also under a court order to propose revised standards for industrial boilers by January 16, 2011, however EPA recently filed a motion asking for a 15-month extension until April 13, 2012.[16] EPA has indicated that wherever possible, it will attempt to coordinate the setting of new source performance and hazardous air pollutant standards to provide regulatory certainty to covered sources.

EPA also proposed a revision to the National Ambient Air Quality Standard (NAAQS) for ground-level ozone on January 6, 2010,[17] a change that would require all states to revise air quality plans in order to achieve more stringent ambient ozone levels, and which would also likely result in new controls on industrial emitters. EPA had initially indicated in court documents that it would publish a final rule by December 31, 2010, but the agency recently requested an extension in related court proceedings until July 29, 2011.[18]

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[12] U.S. EPA, FACT SHEET, SETTLEMENT AGREEMENTS TO ADDRESS GREENHOUSE GAS EMISSIONS FROM ELECTRIC GENERATING UNITS AND REFINERIES (2010), http://www.epa.gov/airquality/pdfs/settlementfactsheet.pdf.

[13] EPA may only regulate emissions from existing sources under this authority if the pollutant in question is not regulated in certain other sections of the CAA. CAA, § 111(d), 42 U.S.C. § 7411(d).

[14] 40 C.F.R. § 60.21(f) (definition of "emissions standard" includes "establishing an allowance system").

[15] Motion to Enter Consent Decree, American Nurses Ass'n v. Jackson, 2010 U.S. Dist. LEXIS 37634 (D.D.C. 2010) (motion filed Feb. 20, 2010).

[16] EPA's Memorandum in Support of Motion to Amend Timetable, Sierra Club v. Jackson, 444 F. Supp. 2d 46 (D.D.C. 2006) (motion filed Dec. 7, 2010).

[17] National Ambient Air Quality Standards for Ozone, 75 Fed. Reg. 2938 (proposed Jan. 19, 2010).

[18] EPA's Revised Motion Requesting an Abeyance and Response to the State Petitioner's Cross-Motion, Mississippi v. EPA, D.C. Cir., No. 08-1200 (D.C. Cir., Dec. 8, 2010).

Potential Obstacles to EPA Regulation

Legal Obstacles: A number of legal challenges have been filed against EPA's efforts to regulate GHG emissions under the CAA, including the Endangerment Finding, the Tailoring Rule, and the Light Duty Vehicle Rule.[19] Plaintiffs in these cases include 150 businesses, advocacy groups, trade associations and government entities, including the states of Alabama, Florida, Indiana, South Carolina, Texas, and Virginia. These legal challenges could disrupt EPA's efforts in three ways. First, the courts could overturn the Endangerment Finding, which forms the legal basis for further EPA regulation of GHG emissions. A successful effort to strike down this finding would nullify most EPA GHG actions. Second, the Tailoring Rule could be invalidated because it does not apply the thresholds explicitly stated in the statute. The immediate consequence of invalidating this rule would likely be that PSD and Title V provisions would apply to a very large number of new and modified stationary sources, creating administrative difficulties and imposing high compliance costs. Finally, the Light Duty Vehicle Rule or other future regulatory actions could be individually struck down, forcing the agency to reformulate these programs, but not destroying the underlying legal authority.[20]

Legislative/Political Obstacles: On June 10, 2010, a bill sponsored by Senator Lisa Murkowski (R-AK) that would have invalidated the endangerment finding[21] (eliminating EPA's authority to regulate GHGs) failed to pass the Senate by a vote of 47-53. Senator Rockefeller (D-WV) similarly proposed legislation, which also failed to pass the 111th Congress, that would have delayed EPA action, would not have invalidated EPA authority over GHG regulation altogether.[22] Similar measures could be reintroduced in the 112th Congress (beginning in January 2011). President Obama previously pledged to veto either measure if passed by both houses of Congress.[23] Congress could also attempt to block EPA action on GHG emissions through the appropriations process, where the Congress could simply refuse to authorize and/or appropriate funds for development or enforcement of EPA's GHG regulations. Finally, the Administration has not yet been able to secure funds requested in the President's budget from Congress to assist states with GHG permitting.

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[19] For a more detailed summary of litigation related to EPA's regulation of GHGs, *see* GREGORY E. WANNIER, COLUMBIA CENTER FOR CLIMATE CHANGE LAW, EPA'S IMPENDING GREENHOUSE GAS REGULATIONS: DIGGING THROUGH THE MORASS OF LITIGATION (2010), http://www.law.columbia.edu/null/download?&exclusive=filemgr.download&file_id=541712.

[20] The Light Duty Vehicle rule is currently being challenged in a number of lawsuits, with plaintiffs including the Southeastern Legal Foundation, U.S. Chamber of Commerce, Competitive Enterprise Institute, American Iron and Steel Institute, and Coalition for Responsible Regulation. Motion for Coordination of Related Cases, Coalition for Responsible Regulation, Inc. v. EPA, case 10-1131, document 1262772, filed 8/26/2010.

[21] S.J. Res. 26, 111th Cong. (introduced Jan. 21, 2010).

[22] Stationary Source Regulations Delay Act, S. Res. 3072, 111th Cong. (introduced March 4, 2010).

[23] Erika Bolstad, *Obama will Veto Alaska Sen. Murkowski's EPA Proposal*, MCCLATCHY NEWSPAPERS, June 9, 2010, *available at* http://www.mcclatchydc.com/2010/06/09/95555/obama-will-veto-alaska-sen-murkowskis.html#ixzz13DVCkyJK; Simon Lomax, *Rockefeller Introduces Bill to Delay EPA Carbon Rules (Update2)*, BUSINESSWEEK.COM, March 4, 2010, *available at* http://www.businessweek.com/news/2010-03-04/rockefeller-introduces-bill-to-delay-epa-carbon-rules-update1-.html.

Role of States

PSD Permitting: Most states have been delegated authority to implement PSD under the NSR Program, which includes defining a "best available control technology" for new and modified sources on a case-by-case basis. Permit fees usually cover the cost of administering the program, although states may need to change the permitting fee schedule to cover the costs of additional permitting.

In anticipation of the early 2011start date, EPA has consulted with states, including a review of State Implementation Plans (SIPs) and other state laws, in order to determine if each state had the authority to issue PSD permits for sources of GHG emissions. Upon completion of its review, EPA determined in a proposed "Finding of Substantial Inadequacy and SIP Call" that thirteen states lacked this authority and that therefore their SIPs were "substantially inadequate."[24] The 13 states were Alaska; parts of Arizona; Arkansas; Sacramento, California; Connecticut; Florida; Idaho; Kansas; parts of Kentucky; Nebraska; Clark County, Nevada; Oregon; and Texas. One other state, Wyoming, asked EPA to be added to the list, indicating that its state laws would also prevent the state from regulating GHGs.[25] EPA found that in some of these states, SIPs explicitly precluded application of the PSD program to sources that emit GHGs, and in other cases, while the SIP may have been appropriate, state constitutions or other state laws would otherwise prevent applying PSD to GHGs. The SIP call requires affected states to submit a "corrective SIP revision that applies the PSD program to GHG sources."

EPA simultaneously issued a proposed Federal Implementation Plan (FIP) that would be applied to any of the affected states that did not provide a corrected SIP by EPA's deadline.[26] The FIP would provide EPA with authority to implement the GHG portion of PSD permitting in affected states, although the state would retain responsibility for the rest of the permit.

The agency proposed that states with inadequate SIPs submit revised SIPs by December 22, 2010, shortly before the January 2, 2011, implementation date for the first phase of the Tailoring Rule. Seven of the thirteen states affirmatively elected to accept the December 22, 2010, deadline but did not submit a revised SIP at that time, effectively agreeing to have EPA take over GHG permitting once the first phase of the Tailoring Rule took effect on January 2, 2011. EPA promulgated a FIP for these seven states on December 23, 2011, effective until EPA approves a revised SIP in the respective states. EPA has encouraged the states to apply for delegated authority to administer the FIPs.[27] The seven states are: Arizona, Arkansas, Florida, Idaho, Kansas, Oregon, and Wyoming.[28]

Five other states, or parts of states, whose SIPs were found to be inadequate indicated that they intend to file revised SIPs at a later date within EPA's one-year deadline.[29] GHG permitting in those states will be delayed until a state permitting mechanism is approved by EPA, however the delay is not expected to adversely affect covered sources in those states,[30] and most states elected a deadline within the first three months of 2011.

[24] Proposed PSD GHG Finding of Substantial Inadequacy and SIP Call, 75 Fed. Reg. 53,892 (proposed Sept. 2, 2010).
[25] NATIONAL ASSOCIATION OF CLEAN AIR AGENCIES, GHG PERMITTING PROGRAMS READY TO GO BY JANUARY 2ND (Oct. 28, 2010), http://www.4cleanair.org/Documents/NACAAGHGSIPCalllletterssummaryfinal.pdf.
[26] Proposed PSD GHG Federal Implementation Plan, 75 Fed. Reg. 53,883 (proposed Sept. 2, 2010).
[27] Final PSD GHG Federal Implementation Plan, RIN 2060-AQ45 at 31 (signed Dec. 23, 2010).
[28] *Id.* at 2.
[29] These states are: Connecticut, Kentucky, Nebraska, Nevada (Clark County), California (Sacremento Metropolitan AQMD). PSD GHG Finding of Substantial Inadequacy and SIP Call, 75 Fed. Reg. 77,698, 77,705 (Dec. 13, 2010).
[30] Final PSD GHG Federal Implementation Plan, RIN 2060-AQ45 at 15 (signed Dec. 23, 2010).

The state of Texas indicated that it did not have the authority, or the intent, to apply PSD to GHG emitting sources.[31] The EPA therefore issued a rule partially disapproving Texas' current SIP with regards to regulation of non-criteria pollutants (including GHGs), invoking its CAA authority to correct errors in approving a SIP.[32] The agency promulgated a FIP with regards to GHG permitting in the same rulemaking.[33]

For more information on EPA's actions regarding state regulation of GHGs by PSD, *see* U.S. EPA, FACT SHEET, CLEAN AIR ACT PERMITTING FOR GREENHOUSE GAS EMISSIONS – FINAL RULES (2010) [34]

For more information of specific state progress, *see* NATIONAL ASSOCIATION OF CLEAN AIR AGENCIES, GHG PERMITTING PROGRAMS READY TO GO BY JANUARY 2ND (Oct. 28, 2010),[35] and NATIONAL ASSOCIATION OF CLEAN AIR AGENCIES, STATES MOVING FULL SPEED AHEAD ON GREENHOUSE GAS PERMITTING (Sept. 15, 2010).[36]

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[31] Interim Final Partial Disapproval, and Federal Implementation Plan Regarding Texas PSD Program, RIN 2060-AQ67 at 9 (interim final rule signed Dec. 23, 2010). This disapproval of Texas' existing SIP is separate from rulemaking under EPA's SIP call. EPA has established a date of Dec. 1, 2011, for Texas to respond to the SIP Call, but indicated that it was promulgating a FIP immediately for Texas because of its statements indicating a lack of intent to comply with PSG GHG regulation and because businesses would be adversely affected by the year long delay of an available permitting authority. *Id.* at 23-24.

[32] CAA, § 110(k)(6), 42 U.S.C. § 7410(k)(6).

[33] EPA promulgated both an interim final rule disapproving Texas' SIP and promulgating a FIP, effective immediately through April 30, 2011, and an identical proposed rule that EPA will receive public comment on and hold a public hearing on before finalizing. Interim Final Partial Disapproval, and Federal Implementation Plan Regarding Texas PSD Program, RIN 2060-AQ67 (interim final rule signed Dec. 23, 2010), Proposed Partial Disapproval, and Federal Implementation Plan Regarding Texas PSD Program, RIN-2060-AQ66 (proposed rule signed Dec. 23, 2010).

[34] Available at http://www.epa.gov/nsr/ghgdocs/20101223factsheet.pdf.

[35] Report available at http://www.4cleanair.org/Documents/NACAAGHGSIPCallletterssummaryfinal.pdf.

[36] Report available at http://www.4cleanair.org/Documents/NACAAGHGpermittingimplementationsummarySep2010.pdf.