



WORLD CLIMATE CHANGE REPORT



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CLEAN AIR ACT

REGULATION

In December 2009, the Environmental Protection Agency issued a final endangerment finding that greenhouse gas emissions from motor vehicles contribute to air pollution that endangers public health and welfare. That finding triggered a series of regulations aimed at reducing the level of greenhouse gas emissions. Also in 2009, EPA said it planned to complete a review by the end of 2011 of the national ambient air quality standards for the six major air pollutants. The authors review the major developments in Clean Air Act regulations and litigation over the past year, outlining how the different rules fit together and what to look out for as implementation of the Clean Air Act continues.

Major Clean Air Act Developments in 2010

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Now 20 years after enactment of the 1990 Amendments overhaul of the Clean Air Act, implementation of the act continues to be as busy and controversial as ever. Recent activity and controversy have focused on the newest area of Clean Air Act regulation, greenhouse gases, as well some of the earliest and most traditional areas of regulation, ambient air quality standards and New Source Review. Following is a brief outline of these ongoing developments, including legal challenges to many Clean Air Act regulations.

I. Climate Change

a. Regulating Climate Change Under the CAA

Cognizant of the hurdles required to pass binding national legislation regarding greenhouse gas emissions after the election of Sen. Scott Brown (R-Mass.) to the Senate on Jan. 19, 2010, left the Democratic majority with fewer than 60 votes in the chamber, the Obama administration spent significant time and energy in 2010 establishing and defending the Environmental Protection Agency's authority to regulate greenhouse gases

under the Clean Air Act.¹ EPA based its authority largely upon the Supreme Court's decision in *Massachusetts v. EPA*.² Absent a successful legal challenge to these actions or legislation that would bar EPA from such regulation (see below), EPA appears certain to continue to push greenhouse gas regulations throughout 2011 and likely for the remainder of Obama's first term. This is particularly likely, given that national legislation designed to address greenhouse gases became more unlikely following the 2010 midterm elections.

i. Endangerment Finding

In the waning weeks of 2009, EPA issued final endangerment and cause or contribute findings with respect to six specific greenhouse gases: carbon dioxide (CO₂); methane (CH₄); nitrous oxide (N₂O); hydrofluorocarbons (HFCs); perfluorocarbons (PFCs); and sulfur hexafluoride (SF₆) (233 DEN A-1, 12/8/09).³ Specifically, the rule states that "the combined emissions of these greenhouse gases from new motor vehicle engines contribute to the greenhouse gas air pollution that endangers public health and welfare under CAA section 202(a)." ⁴ EPA based its decision in large part upon the Supreme Court's holding in *Massachusetts v. EPA*, upon which the Bush administration had previously declined to act. Expectedly, EPA's decision to regulate greenhouse gas emissions generated significant interest among regulators, the regulated community, and environmental groups; EPA's proposed endangerment finding, which was issued on April 24, 2009,⁵ and subject to 60 days of public comment, received more than 400,000 comments, both critical and supportive.⁶

Although the final endangerment finding does not in itself impose new greenhouse gas requirements, the finding was a necessary first step in EPA's effort to regulate the emissions. Under the CAA's regulatory and permitting mechanisms, once EPA issues an endangerment finding with regard to a pollutant from a specific source (e.g., CO₂ from tailpipe emissions), the agency may promulgate regulations setting emissions threshold levels for that pollutant from that source. In turn, promulgation of emissions limits for that pollutant would then render it "subject to regulation" under the CAA and thus trigger application of the Prevention of Significant Deterioration (PSD) and Title V permit programs. Such action would thus have the ultimate effect of requiring that new or modified "major emitting facilities" install Best Available Control Technology (BACT) with respect to that pollutant.⁷

Due to the potentially wide-sweeping effect of such regulations, 17 separate parties filed suit in 2010 to

challenge the endangerment finding; the D.C. Circuit consolidated these cases under the name *Coalition for Responsible Regulation, Inc. v. EPA* (CRR v. EPA),⁸ and that action is still pending.⁹

In their challenge, petitioners assert primarily that EPA relied upon faulty data in issuing its endangerment finding. Specifically, petitioners focus on the alleged unreliability of EPA's scientific sources and attack the credibility of the findings of the Intergovernmental Panel on Climate Change (IPCC), in part based upon the "Climategate" controversy, in which e-mails hacked from the Climate Research Unit at the University of East Anglia in England late in 2009 showed researchers discussing a desire to suppress studies questioning the view that climate change is occurring due to human activities. In addition, petitioners assert that EPA was required, but failed, to define the level at which greenhouse gases are dangerous and that the agency understates the scientific uncertainties associated with greenhouse gas emissions. In response, EPA asserts that it relied on multiple sources of scientific information, that petitioners' criticisms of the IPCC are without basis, that the record amply supports its finding, and that the agency is simply following the mandate set forth in *Massachusetts v. EPA*.

In addition to challenges through litigation, it appears that the newly sworn-in Republican-led House of Representatives will also seek to limit EPA's authority to regulate greenhouse gas emissions through the passage of legislation. This agenda was clearly articulated by incoming House Energy Committee Chairman Fred Upton (R-Mich.), who said in a Dec. 23 statement: "[w]e will not allow the administration to regulate what they have been unable to legislate - this [regulation] is nothing short of a backdoor attempt to implement their failed job-killing cap-and-trade scheme."¹⁰ It is anticipated that such legislation could face significant obstacles to passage in the Democratic-led Senate, and potentially a presidential veto.

ii. Tailpipe Rule (Light-Duty Vehicle Rule)

Following its issuance of the final greenhouse gas endangerment finding, EPA and the U.S. Department of Transportation on May 7, 2010, published the tailpipe

⁸ No. 09-1322 (D.C. Cir. filed Dec. 23, 2009). In addition, 10 more cases were consolidated with this group on Nov. 15 that challenged EPA's refusal to reconsider the endangerment finding (originally CRR v. EPA, docket 10-1234), bringing the total to 26.

⁹ On Aug. 13, 2010, EPA denied petitions to reconsider the Endangerment and Cause or Contribute Findings for greenhouse gases under § 202(a) of the CAA. See EPA's Denial of the Petitions To Reconsider the Endangerment and Cause or Contribute Findings for Greenhouse Gases Under Section 202(a) of the Clean Air Act, 75 Fed. Reg. 49,556 (Aug. 13, 2010).

¹⁰ See Press Release, Fred Upton, (Dec. 23, 2010), available at <http://upton.house.gov/News/DocumentSingle.aspx?DocumentID=218630>. The Environmental Protection Agency's authority to regulate greenhouse gases also was targeted in the House's continuing resolution legislation (H.R. 1) that would fund the government for the rest of fiscal year 2011. Section 1746 of the bill would prohibit any federal funds "for purposes of enforcing or promulgating any regulation (other than with respect to section 202 of the Clean Air Act) or order, taking action relating to, or denying approval of state implementation plans or permits because of the emissions of greenhouse gases due to concerns regarding possible climate change."

¹ 42 U.S.C. §§ 7401 *et seq.* (CAA).

² 549 U.S. 497, 63 ERC 2057 (2007).

³ Endangerment and Cause or Contribute Findings for Greenhouse Gases under Section 202(a) of the Clean Air Act, 74 Fed. Reg. 66,496 (Dec. 15, 2009) (hereinafter "endangerment finding").

⁴ *Id.* at 66,496.

⁵ Proposed Endangerment and Cause or Contribute Findings for Greenhouse Gases under Section 202(a) of the Clean Air Act, 74 Fed. Reg. 18,886 (proposed Apr. 24, 2009).

⁶ Lisa Jackson, Remarks to the Commonwealth Club of San Francisco (Sept. 29, 2009), available at <http://yosemite.epa.gov/opa/advpress.nsf/a883dc3da7094f97852572a00065d7d8!fc4e2a8c05343b3285257640007081c5!OpenDocument>.

⁷ See Section I(a)(ii), *infra*.

rule (also known as the light-duty vehicle rule), which sets greenhouse gas emissions thresholds for automobiles and light trucks.¹¹ This rule, which became effective Jan. 2, 2011,¹² the first day of the 2012 model year, sets emissions limits for the six specific greenhouse gases included in the endangerment finding. According to EPA, promulgation of the tailpipe rule rendered those six greenhouse gases “subject to regulation” under the CAA, and as a result, caused certain stationary sources that emit greenhouse gases to be subject to the requirements of the PSD and Title V permit programs as of Jan. 2, 2011.¹³

When proposed, this rule caused significant concern among the regulated community. Many parties asserted that the regulation had potential to increase exponentially the breadth of the PSD and Title V permitting programs, because the 250-ton emissions threshold established by the CAA was crafted in consideration of the emission of conventional pollutants, not greenhouse gas emissions¹⁴ (and in particular CO₂). Indeed, initial estimates stated that a 250-ton emissions threshold would render more than 6 million facilities subject to greenhouse gas emissions regulation, including offices, apartment buildings, schools, hospitals, and even some individual residences.¹⁵ In response to this concern, EPA promulgated the tailoring rule, set forth below, to increase the 250-ton-per-year threshold for greenhouse gas emissions and thus reduce the number of affected facilities.

Thus far, the tailpipe rule has been the subject of significant and ongoing litigation; on Aug. 5, 2010, the D.C. Circuit consolidated 17 separate cases challenging the tailpipe rule into a case called *Coalition for Responsible Regulation v. EPA*.¹⁶ Petitioners argue that the benefits of the tailpipe rule are too trivial to justify action, and that it is duplicative of already-existing Corporate Average Fuel Economy (CAFE) standards under the National Highway Traffic Safety Administration (NHTSA). In response, EPA has asserted that carbon emissions are not redundant to emissions of ozone-causing gases (as they impose different obligations, and allow more nimble regulatory options), and that there is no mandate in the CAA that regulations meet any minimum effectiveness threshold as long as the benefits exceed the costs. These points largely echo points made by the Supreme Court in *Massachusetts v. EPA*.

This case should be carefully watched over the coming year, as it could have significant implications. If petitioners are successful in challenging the tailpipe rule, it could not only invalidate EPA’s attempt to regulate greenhouse gas emissions from automobiles, but could

potentially render greenhouse gases no longer “subject to regulation,” and thus eliminate permitting requirements for the emissions under the PSD and Title V programs.¹⁷

iii. Tailoring Rule

In response to concerns regarding the potentially immediate and dramatic effect of the tailpipe rule, the agency issued the tailoring rule on June 3, 2010, which phases in the application of greenhouse gas permitting requirements over a period of years.¹⁸ This phase-in approach is intended to provide time for large facilities and permitting authorities to develop the capacity to implement permitting requirements for greenhouse gas emissions.¹⁹ EPA has stated that the rule will initially limit greenhouse gas regulation to those “facilities responsible for nearly 70 percent of the national GHG [greenhouse gas] emissions from stationary sources . . . , including the nation’s largest GHG emitters (i.e., power plants, refineries, and cement production facilities),” which the agency believes have the greatest experience in CAA permitting.²⁰ By contrast, the rule excludes from regulation small farms, churches, restaurants, and small commercial facilities.²¹

Pursuant to the tailoring rule, the phase-in of greenhouse gas permitting requirements will occur as follows:

- As of Jan. 2, 2011, large industrial facilities that must *already* obtain CAA permits are required to meet the applicable requirements of PSD (including BACT) for projects that increase net greenhouse gas emissions by 75,000 tons per year (tpy) of carbon dioxide equivalent (CO₂e) or more, if the project also significantly increases emissions of at least one non-greenhouse gas pollutant. In addition, existing sources with, or new sources obtaining, Title V permits for non-greenhouse gas pollutants will be required to address greenhouse gas emissions.
- Starting July 2011, in addition to facilities described above, all new facilities emitting greenhouse gases in excess of 100,000 tons per year of CO₂e and facilities making changes that would increase emissions by at least 75,000 tpy CO₂e, and that also exceed 100/250 tons per year of greenhouse gas emissions on a mass basis, will be required to obtain construction permits that address the emissions (regardless of whether they emit enough non-greenhouse gas pollutants to require a permit for those emissions).

¹¹ Light-Duty Vehicle Greenhouse Gas Emission Standards and Corporate Average Fuel Economy Standards, 75 Fed. Reg. 25,324 (May 7, 2010) (herein after “tailpipe rule”).

¹² *Id.* at 25,445.

¹³ EPA Fact Sheet, Clean Air Permitting for Greenhouse Gases: Guidance and Technical Information 7, available at <http://www.epa.gov/nsr/ghgdocs/ghgpermittingtoolsfs.pdf>.

¹⁴ Greenhouse gases are a single air pollutant defined as the aggregate group of the six gases regulated under the Light-Duty Vehicle Rule. 40 C.F.R. § 52.21(b)(49)(i).

¹⁵ Steven D. Cook, Comment Period Opens on EPA Plan to Limit Stationary Source Emissions, Daily Env’t Rep. (BNA), Oct. 27, 2009 (205 DEN A-3, 10/27/09).

¹⁶ No. 10-1092 (D.C. Cir. filed May 7, 2010). Please note that this case is distinct from litigation of the same name regarding the endangerment finding.

¹⁷ On Nov. 30, 2010, EPA issued a proposed rule establishing standards for greenhouse gas emissions and fuel efficiency for medium- and heavy-duty engines and vehicles. The proposed emission standards would begin in model year 2014. The proposed fuel efficiency standards would become voluntary in model years 2014 and 2015, becoming mandatory in model year 2016 for most regulatory categories. Commercial trailers would not be affected by the proposed rule.

¹⁸ Prevention of Significant Deterioration and Title V Greenhouse Gas Tailoring Rule, 75 Fed. Reg. 31,514 (June 3, 2010) (hereinafter “tailoring rule”).

¹⁹ *Id.* at 31,516.

²⁰ Office of Air Quality Planning and Standards, EPA, PSD and Title V Permitting Guidance for Greenhouse Gases 3 (2010), available at <http://www.epa.gov/nsr/ghgdocs/epa-hq-oar-2010-0841-0001.pdf>.

²¹ *Id.*

- Also starting July 2011, operating permits will be required for all sources that emit 100,000 tons or more of greenhouse gases per year on a CO₂e basis.
- Sources emitting less than 50,000 tons per year on a CO₂e basis will not be required to obtain permits for greenhouse gas emissions before 2016.²²

Since EPA's promulgation of this regulation, 26 individual legal challenges have been filed; the cases were consolidated in their entirety as *Southeastern Legal Foundation v. EPA* by the D.C. Circuit on Sept. 3, 2010.²³ Presently, the legal challenge to the tailoring rule appears to be significantly more likely to succeed than challenges to the endangerment finding and tailpipe rule. Specifically, petitioners assert that the CAA sets forth an express numerical threshold regarding when a source is subject to regulation, and that because the tailoring rule sets levels far above that statutory threshold, it is invalid. Petitioners also argue that the rule intrudes on the states' regulatory authority under the CAA.

In response, EPA asserts that the rule is valid under three separate legal doctrines: (1) the "absurd results" doctrine, which EPA asserts permits the agency to alter statutory limits because strict adherence to the statute would lead to an absurd result (in this case, overregulation, subjecting some 6 million facilities to greenhouse gas regulation); (2) the "administrative necessity" doctrine; and (3) the "one-step-at-a-time" doctrine, which authorizes agencies to implement statutory requirements one step at a time.²⁴

Petitioners' challenge to the "absurd results" doctrine focuses on the argument that EPA could avoid these results with a more natural reading of the CAA, and that EPA cannot distort the CAA by including greenhouse gases and then use this distortion to overturn direct requirements elsewhere. EPA has responded by emphasizing the larger intent of the CAA as being more important than specific and outdated procedural points.

Importantly, if this rule were overturned, it would likely force EPA to cease regulation of greenhouse gas emissions for the time being, as the agency would be unable to address regulation for all affected sources without a phased-in approach to permitting different types of facilities. Thus, due to the potential strength of these arguments, this case should be watched closely for legal developments. In addition to legal challenges, certain members of Congress have expressed interest in staying application of the tailoring rule pending EPA's release of its supplemental rulemaking process, which is expected sometime in 2011 or 2012. On Dec. 10, a bipartisan group of 32 members of Congress wrote EPA Administrator Lisa Jackson to request that EPA stay the implementation of the tailoring rule until the agency is able to complete the supplemental rulemaking process.²⁵

²² Tailoring Rule, 75 Fed. Reg. at 31,516; EPA Fact Sheet, *supra* note 13, at 6.

²³ No. 10-1131 (D.C. Cir. filed June 3, 2010).

²⁴ Tailoring Rule, 75 Fed. Reg. at 31,516.

²⁵ Letter from Members of Congress to Lisa Jackson, Administrator, EPA (Dec. 10, 2010), available at <http://nafoalliance.org/wp-content/uploads/Admin-Jackson-Tailoring-Rule-Letter.pdf>.

iv. Implementation and the Texas Challenge

Although there are numerous and significant legal challenges to the regulatory underpinnings of greenhouse gas regulation currently pending in the D.C. Circuit, no party thus far has succeeded in convincing the court to stay the regulation pending resolution of the myriad claims raised. Indeed, on Dec. 10, 2010, the D.C. Circuit denied a joint request by the petitioners in each of the consolidated actions discussed above to stay EPA's regulation of greenhouse gas emissions pending review of each of the underlying regulatory actions. In denying that request, the D.C. Circuit held that "Petitioners [had] not satisfied the stringent standards required for a stay pending court review."²⁶

No party, other than the state of Texas, has succeeded in legal challenges. On Dec. 13, 2010, EPA issued a finding that EPA-approved state implementation plans (SIPs) of 13 states are substantially inadequate to meet CAA requirements because they do not apply PSD requirements to greenhouse gas-emitting sources.²⁷ EPA also issued a "SIP call" for each of these states, requiring them to revise their SIP to correct these inadequacies. The agency imposed deadlines for the SIP revisions, differing among the states, ranging from Dec. 22, 2010, to Dec. 1, 2011.

In the final weeks of 2010, every state other than Texas that acts as a PSD and Title V regulating authority was working to put into effect the framework required to process the necessary permits for facility modification and new construction with respect to greenhouse gas emissions. Texas, however, refused to enact such a framework, leading EPA to file an interim rule to withdraw permitting authority from the state of Texas and to implement its own federal regulations regarding greenhouse gas emissions prior to the Jan. 2, 2011 date of enactment of the tailoring rule.²⁸

Texas filed suit for an emergency stay of that rule, which the D.C. Circuit granted pending further review of the court.²⁹ The court lifted the emergency stay Jan. 12, allowing EPA to issue permits for large stationary sources of greenhouse gas emissions pending a review of the merits of the Texas lawsuit.³⁰ Although it is uncertain how the circuit court will resolve Texas' lawsuit, this case could prove pivotal in the fight, as states seeking to limit or eliminate greenhouse gas regulation under state programs will likely follow Texas' lead if successful.

v. Recent Settlements

On Dec. 23, 2010, EPA entered into two settlement agreements obligating the Agency to issue rules that

²⁶ *CRR v. EPA*, No. 09-1322 (D.C. Cir. Dec. 10, 2010) (order denying stay pending court review).

²⁷ Action To Ensure Authority To Issue Permits Under the Prevention of Significant Deterioration Program to Sources of Greenhouse Gas Emissions: Finding of Substantial Inadequacy and SIP Call, 75 Fed. Reg. 77,698 (Dec. 13, 2010).

²⁸ Determinations Concerning Need for Error Correction, Partial Approval and Partial Disapproval, 75 Fed. Reg. 82,430, 82,431 (Dec. 30, 2010) ("This rulemaking is intended to assure that large GHG-emitting sources in Texas will be able to obtain preconstruction permits under the CAA New Source Review (NSR) PSD program, and do so when they become subject to PSD, which will occur on January 2, 2011. In this manner, this rulemaking will allow those sources to avoid delays in construction or modification.").

²⁹ *Texas v. EPA*, No. 10-1425 (D.C. Cir. Dec. 30, 2010).

³⁰ *Texas v. EPA*, No. 10-1425 (D.C. Cir. Jan. 12, 2011).

will address greenhouse gas emissions from certain fossil fuel-fired power plants and refineries. Under the schedule set forth in the consent decrees, the agency must first propose New Source Performance Standards (NSPS) for greenhouse gas emissions for new and modified electric generating units (EGUs), as well as guidelines for greenhouse gas emissions from existing EGUs, by July 26, 2011.³¹ Thereafter, EPA is obligated to issue final regulations no later than May 26, 2012. Second, EPA is required to propose NSPS for new and modified refineries by Dec. 15, 2011, and the agency must finalize those standards by Nov. 15, 2012.³²

b. Mandatory Reporting Rule

In addition to its attempts to regulate greenhouse gases through emissions thresholds, EPA has also sought to limit emissions through imposition of mandatory reporting requirements. In October 2009, EPA proposed and finalized its Mandatory Reporting of Greenhouse Gases Rule,³³ which created a nationwide system for reporting greenhouse gas emissions. Specifically, the regulation requires that as of Jan. 1, 2010, facilities that supply certain products (including petroleum products), facilities in particular source categories, and facilities that emit 25,000 metric tpy or more of CO₂e³⁴ must monitor greenhouse gas emissions and submit annual reports to EPA regarding their emissions.³⁵ Facilities within these source categories must submit their initial compliance reports by March 31, 2011.³⁶

In addition to those sources that were required to monitor and report beginning Jan. 1, 2010, a number of additional sources must begin monitoring and reporting greenhouse gas emissions in 2011. On Dec. 1, 2010, EPA issued a final rule requiring monitoring and reporting (but not control) of greenhouse gas emissions from additional sources of fluorinated greenhouse gases, including electronic manufacturing, fluorinated gas production, electrical equipment use, electrical equipment manufacture or refurbishment, and importers and exporters of pre-charged equipment and closed-cell foams.³⁷ This rule is expected to require reporting from an additional 385 facilities from those required to report as of Jan. 1, 2010. Separately, EPA issued a final rule requiring monitoring and reporting (but not control) of greenhouse gas emissions from facilities that conduct geologic sequestration of carbon dioxide and all other

facilities that conduct injection of carbon dioxide.³⁸ Both final rules became effective on Dec. 31, 2010. It is anticipated that reporting requirements will be amended to apply to an increased number of sources over the course of 2011.

II. Traditional Air Pollutants

a. NAAQS

The CAA requires EPA to set national ambient air quality standards (NAAQS) for especially widespread air pollutants listed by EPA. These are often referred to as “criteria pollutants.” The NAAQS address six criteria pollutants: ozone, particulate matter (PM), carbon monoxide (CO), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), and lead. The CAA also requires EPA to review the standards periodically and revise them if appropriate to ensure that they provide requisite health and environmental protection. EPA announced in October 2009 that it planned to complete a review of the NAAQS for each of the six major air pollutants by the end of 2011.³⁹ Over the course of 2010, EPA made significant headway on this commitment, finalizing standards for several pollutants. Prior to 2010, EPA finalized the new lead standard in 2008.

i. Sulfur Dioxide

On June 22, 2010, EPA issued a final rule setting a new primary, health-based NAAQS for SO₂. Under the revised rule, EPA replaced the former 24-hour and annual standards with a short-term standard based on the three-year average of the 99th percentile of the yearly distribution of the one-hour daily maximum SO₂ concentrations.⁴⁰ The rule set the level of the new standard at 75 parts per billion (ppb); however, it leaves in place the secondary SO₂ standard of 0.5 parts per million (ppm) over three hours.⁴¹ The rule became effective Aug. 23, 2010.⁴²

Sulfur dioxide is one of a group of highly reactive gases known as “oxides of sulfur” and its largest sources of emissions are fossil fuel combustion at power plants (73 percent) and other industrial facilities (20 percent).⁴³ SO₂ is linked with a number of adverse effects on the respiratory system, and EPA asserts that the revised standard will yield health benefits valued between \$13 billion and \$33 billion, including reduced hospital admissions, emergency room visits, workdays lost due to illness, and cases of aggravated asthma and

³¹ *New York v. EPA*, No. 06-1322 (D.C. Cir. settlement reached Dec. 23, 2010); EPA Fact Sheet, Settlement Agreements to Address Greenhouse Gas Emissions from Electric Generating Units and Refineries, available at <http://www.epa.gov/airquality/pdfs/settlementfactsheet.pdf>.

³² *Am. Petroleum Inst. v. EPA*, No. 08-1277 (D.C. Cir. settlement reached Dec. 23, 2010).

³³ Mandatory Reporting of Greenhouse Gases, 74 Fed. Reg. 56,260 (Oct. 30, 2009).

³⁴ The gases covered by the rule are carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride, and other fluorinated gases.

³⁵ 74 Fed. Reg. at 56,266-67.

³⁶ *Id.* at 56,267. Facilities reporting under the stationary fuel source category (Subpart C) may submit abbreviated reports for 2010. *Id.* at 56,275.

³⁷ Mandatory Reporting of Greenhouse Gases: Additional Sources of Fluorinated GHGs, 75 Fed. Reg. 74,774 (Dec. 1, 2010).

³⁸ Mandatory Reporting of Greenhouse Gases: Injection and Geologic Sequestration of Carbon Dioxide, 75 Fed. Reg. 75,060 (Dec. 1, 2010).

³⁹ Steven D. Cook, EPA to Complete Review of Standards for Six Major Air Pollutants by 2011, Daily Env't Rep. (BNA), Oct. 27, 2009 (205 DEN A-1, 10/27/09).

⁴⁰ Primary National Ambient Air Quality Standards for Sulfur Dioxide, 75 Fed. Reg. 35,520, 35,520 (June 22, 2010).

⁴¹ *Id.*

⁴² On March 12, 2010, EPA released a preliminary draft report, “Policy Assessment for the Review of the Secondary National Ambient Air Quality Standards for Oxides of Nitrogen and Oxides of Sulfur: First External Review Draft.” EPA has since issued a second external review draft, available at <http://www.epa.gov/ttnnaqs/standards/no2so2sec/data/20100915padraft.pdf>.

⁴³ EPA Fact Sheet, Revisions to the Primary NAAQS, Monitoring Network, and Data Reporting Requirements for Sulfur Dioxide 5, available at <http://www.epa.gov/air/sulfurdioxide/pdfs/20100602fs.pdf>.

chronic bronchitis.⁴⁴ EPA first set NAAQS for SO₂ in 1971; the initial standard contained a 24-hour primary standard at 140 ppb and an annual average standard at 30 ppb (to protect health).⁴⁵

ii. Nitrogen Dioxide

On Feb. 9, 2010, EPA issued a final rule revising the primary NAAQS for NO₂.⁴⁶ The final rule sets a one-hour NO₂ standard at 100 ppb, based upon a three-year average of the 98th percentile of the annual distribution of daily maximum one-hour average concentrations. EPA retained, without change, the annual average NO₂ standard of 53 ppb.⁴⁷ The final rule became effective April 12, 2010.

Nitrogen dioxide is one of a group of highly reactive gases known as “oxides of nitrogen.” NO₂ forms from emissions from cars, trucks and buses, power plants, and off-road equipment, and is linked with a number of adverse effects on the respiratory system.⁴⁸ EPA first established standards for NO₂ in 1971, setting both a primary standard (to protect health) and a secondary standard (to protect the public welfare) at 53 ppb, averaged annually.⁴⁹ Prior to this rule, the agency twice reviewed the standards and decided not to revise them.⁵⁰

iii. Carbon Monoxide

On Nov. 2, 2010, EPA released a policy assessment regarding potential new NAAQS for carbon monoxide.⁵¹ The assessment suggests that a major change is likely in the short-term NAAQS, which is meant to protect against short-term spikes in pollution. To that end, the assessment recommends tightening the one-hour standard from the existing level of 35 ppm to a range between 5 and 15 ppm. The assessment also suggests either retaining the existing eight-hour standard of 9 ppm or setting it within a range of 3 to 9 ppm. On Dec. 20, 2010, EPA sent a proposed rule to revise its carbon monoxide NAAQS to the White House Office of Management and Budget for final review before it is published in the *Federal Register*. EPA is under court deadline to issue the proposed rule in February 2011 and the final rule in August 2011. It is unlikely further information will be made available prior to the issuance of the proposed rule in February.

iv. Ozone

On Jan. 19, 2010, EPA published a proposed rule for the NAAQS for ozone, which establishes different primary and secondary standards from those promulgated in March 2008.⁵² Specifically, the proposed rule would decrease the primary standard for ozone from the 0.075

ppm established in the 2008 rule to 0.060-0.070 ppm. The proposed rule asserts that this standard is necessary to provide “increased protection for children and other ‘at risk’ populations against an array of O₃-related adverse health effects”⁵³ In addition, the proposed rule sets forth a new secondary standard that would be a cumulative, seasonal standard expressed as an annual index of the sum of the weighted hourly concentrations, cumulated over 12 hours per day (8 a.m.-8 p.m.) during the consecutive three-month period within the ozone season (which runs from April 1 to Oct. 31) with the maximum index value, set at a level within the range of 7 to 15 ppm-hours.⁵⁴

Presently, it appears the final rule will be issued on or before July 31, 2011. EPA is currently in litigation regarding the ozone NAAQS and that litigation is being held in abeyance pending EPA’s issuance of a final rule. EPA originally informed the court that it would issue its final rule by Aug. 31, 2010; however, EPA subsequently requested extensions to continue to hold the case in abeyance pending issuance of the final rule until Oct. 31, 2010, then Dec. 31, 2010, and finally July 31, 2011.⁵⁵

Ozone is found in two regions of the Earth’s atmosphere: at ground level and in the upper regions of the atmosphere. Both types of ozone have the same chemical composition (O₃). While upper atmospheric ozone forms a protective layer from the sun’s harmful ultraviolet rays, ground level ozone is the main component of smog. Ground-level ozone is not emitted directly into the air, but forms in the presence of sunlight through a reaction of nitrogen oxides, volatile organic compounds (VOCs), carbon monoxide, and methane. Emissions from industrial facilities and electric utilities, motor vehicle exhaust, gasoline vapors, and chemical solvents are the major man-made sources of NO_x and VOCs.⁵⁶

v. Lead

In *Coalition of Battery Recyclers Association v. EPA*,⁵⁷ the D.C. Circuit denied petitions seeking review of EPA’s revision to the primary and secondary NAAQS for lead. The court rejected the petitioners’ claims that the revised standards were overprotective, that EPA had relied on inadequate scientific studies, that EPA’s selection of an averaging time was arbitrary and capricious, and that EPA lacked statutory authority to consider the bioavailability of lead sulfides when determining compliance with the revised standards.

On Dec. 8, 2010, EPA announced the availability of two studies that provide information on the potential for lead emissions from the combustion of leaded aviation fuel at airports to exceed the lead NAAQS.⁵⁸ These studies were designed to support proposed revisions to lead monitoring requirements published Dec. 30, 2009.

vi. Fine Particulate Matter

On Feb. 11, 2010, EPA issued a proposed rule that would repeal the “grandfathering” provision for PM

⁴⁴ *Id.* at 1.

⁴⁵ *Id.* at 5.

⁴⁶ Primary National Ambient Air Quality Standards for Nitrogen Dioxide, 75 Fed. Reg. 6,474 (Feb. 9, 2010).

⁴⁷ *Id.* at 6,474.

⁴⁸ EPA Fact Sheet, Final Revisions to the NAAQS for Nitrogen Dioxide 4, available at <http://www.epa.gov/air/nitrogenoxides/pdfs/20100122fs.pdf>.

⁴⁹ *Id.*

⁵⁰ *Id.*

⁵¹ Release of Final Document Related to the Review of NAAQS for Carbon Monoxide, 75 Fed. Reg. 67,361 (Nov. 2, 2010); Office of Air Quality Planning and Standards, EPA, Policy Assessment for the Review of the Carbon Monoxide NAAQS (2010), available at <http://www.epa.gov/ttn/naaqs/standards/co/data/20101022copafinal.pdf>.

⁵² NAAQS for Ozone, 75 Fed. Reg. 2,938 (Jan. 19, 2010).

⁵³ *Id.* at 2,938.

⁵⁴ *Id.*

⁵⁵ See *Mississippi v. EPA*, No. 08-1200 (D.C. Cir. filed May 23, 2008).

⁵⁶ EPA Fact Sheet, Proposal to Revise the NAAQS for Ozone, available at <http://www.epa.gov/air/ozonepollution/pdfs/fs20100106std.pdf>.

⁵⁷ 604 F.3d 613 (D.C. Cir. 2010).

⁵⁸ Notice of Data Availability Regarding Two Studies of Ambient Lead Concentrations Near a General Aviation Airport, 75 Fed. Reg. 76,336 (Dec. 8, 2010).

less than 2.5 micrometers in diameter (PM-2.5) contained in the federal PSD requirements.⁵⁹ Additionally, EPA proposed to end early the PM-10 Surrogate Policy applicable in states that have an approved PSD program in their SIP.

On April 5, 2010, EPA issued a final rule revising the General Conformity Regulations, promulgated in 1993.⁶⁰ The final rule is designed to assist state, tribal, and local agencies in developing SIP revisions to address revised ozone NAAQS and the 2007 fine particulate matter standard. On June 9, 2010, EPA made a finding of failure of 29 states or territories to submit completed SIPs to satisfy the nonattainment and maintenance interstate transport requirements set forth in § 110(a) of the CAA for the 2006 24-hour NAAQS for fine particulates.⁶¹

On Oct. 20, 2010, EPA issued final amendments pertaining to PSD requirements for PM-2.5,⁶² by establishing increments and implementing two screening tools: the Significant Impact Levels (SILs) and a Significant Monitoring Concentration (SMC). The SILs are also being added to two other New Source Review rules to regulate major stationary sources that are located in attainment or unclassifiable areas where their emissions may violate NAAQS.

b. Hazardous Air Pollutants

i. The Mercury Rule and the MACT Hammer

In *Sierra Club v. Sandy Creek Energy Associates*,⁶³ the Fifth Circuit reversed a district court decision granting summary judgment to Sandy Creek and denying the Sierra Club's motion for summary judgment on its claim that the defendant's ongoing construction of a coal-fired power plant without a determination of emission limitations for mercury violated § 112 of the CAA. Sandy Creek had commenced construction of the plant at a time when an EPA rule had delisted coal and oil-fired electric generating units from the list of sources of hazardous air pollutants subject to the maximum achievable control technology (MACT), emission limitations under § 112. That delisting rule was later vacated by the D.C. Circuit in *New Jersey v. EPA*.⁶⁴

The court held that, notwithstanding Sandy Creek's reasonable reliance on the delisting rule, the company's ongoing construction of the plant without a MACT determination by the appropriate state permitting authority violated § 112. The court also affirmed the district court's refusal to abstain pursuant to *Burford v. Sun Oil Co.*,⁶⁵ rejecting Sandy Creek's argument that Sierra Club's citizen lawsuit was a collateral attack on a state

agency decision made under state regulatory law that required the federal court abstention.

ii. Recent MACT Developments

1. Portland Cement Plants

On Sept. 9, 2010, EPA issued new MACT standards for Portland cement plants.⁶⁶ The revised MACT standards set emissions levels for mercury, total hydrocarbons, and PM from new and existing kilns located at major new sources, and for hydrochloric acid from new and existing kilns located at new sources. EPA estimates that as of 2013, when all existing sources will be required to come into compliance with the revised standards, 158 kilns at 100 Portland cement manufacturing facilities located in the United States and Puerto Rico will be subject to these revised MACT standards.⁶⁷

2. Industrial Boilers

On June 4, 2010, EPA issued proposed MACT standards for industrial boilers.⁶⁸ As proposed, the standards would impose stringent emissions limits and monitoring requirements on existing fossil fuel- and biomass-fired boilers by the end of 2013, and on any new boilers constructed after the rule is finalized. On Dec. 7, 2010, in response to extensive public comment to the proposed rule, EPA filed a motion in *Sierra Club v. Jackson*⁶⁹ seeking to extend the current rules and requesting an additional 15 months to release revised rules. EPA's request seeks to extend the final release date to April 2012, which would allow for another period of public comment.

3. Electric Generating Units

On April 15, 2010, EPA entered into a Consent Decree in *Am. Nurses Ass'n v. Jackson*,⁷⁰ requiring EPA to issue proposed rules setting forth MACT standards for coal- and oil-fired electric generating units no later than March 16, 2011. Pursuant to the Consent Decree, EPA is required to finalize its rulemaking no later than Nov. 16, 2011, with implementation to be required by 2014.

c. New Source Review

i. New Source Review Rulemaking

1. Routine Maintenance

In *National Parks Conservation Assoc. v. Tennessee Valley Authority*,⁷¹ the Tennessee District Court considered whether certain projects undertaken at the Tennessee Valley Authority's Bull Run coal-fired electric generating plant in 1988, which included replacement of economizer elements and the inlet portion of the secondary supercharger outlet pendant elements, constituted routine maintenance, repair, and replacement within the meaning of the PSD regulations. Following a

⁵⁹ Implementation of NSR Program for P-2.5; Notice of Proposed Rulemaking To Repeal Grandfathering Provision and End the PM10 Surrogate Policy, 75 Fed. Reg. 6827 (proposed Feb. 11, 2010).

⁶⁰ Revisions to the General Conformity Regulations, 75 Fed. Reg. 17,254 (Apr. 5, 2010).

⁶¹ Finding of Failure To Submit Section 110 State Implementation Plans for Interstate Transport for the 2006 NAAQS for Fine Particulate Matter, 75 Fed. Reg. 32,673 (June 9, 2010).

⁶² PSD for Particulate Matter Less Than 2.5 Micrometers (PM-2.5)—Increments, Significant Impact Levels (SILs) and Significant Monitoring Concentration (SMC), 75 Fed. Reg. 64,864 (Oct. 20, 2010).

⁶³ 627 F.3d 134 (5th Cir. 2010).

⁶⁴ 517 F.3d 574 (D.C. Cir. 2008).

⁶⁵ 319 U.S. 315 (1943).

⁶⁶ National Emissions Standards for Hazardous Air Pollutants from the Portland Cement Manufacturing Industry and Standards of Performance for Portland Cement Plants, 75 Fed. Reg. 54,970 (Sept. 9, 2010).

⁶⁷ Id. at 55020.

⁶⁸ National Emissions Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters, 75 Fed. Reg. 32,006 (June 4, 2010).

⁶⁹ No. 1:01-cv-1537 (D.D.C. filed July 16, 2001).

⁷⁰ No. 1:08-cv-2198 (D.D.C. filed Dec. 18, 2010).

⁷¹ No. 3:01-CV-71, 2010 WL 1291335 (E.D. Tenn. Mar. 31, 2010).

bench trial, the court found that the projects fell within the routine maintenance, repair, and replacement exception to the major modification requirements of the PSD regulations. The court's decision relied primarily on its consideration of four factors with respect to each of the individual projects: the nature and extent; the purpose; the frequency; and the cost.

2. Aggregation Rule

On April 15, 2010, EPA issued a proposed reconsideration of the NSR Aggregation Amendments rule,⁷² promulgated on Jan. 15, 2009. This rule established that sources and permitting authorities should aggregate emissions only when nominally separate changes at a major stationary source are "substantially related." On Jan. 30, 2009, the agency received a petition from the Natural Resources Defense Council (NRDC) raising various legal and policy concerns and, as a result, EPA proposed to revoke the rule while extending the stay of the rule's effective date for an additional six months. In addition to filing a petition for review with EPA, NRDC also filed a petition for review in the D.C. Circuit.⁷³ On May 18, 2010, EPA delayed the effective date of this rule pending agency review of NRDC's petition.⁷⁴

3. Fugitive Emissions Rule

On March 31, 2010, EPA issued an 18-month stay on the inclusion in the federal PSD program of the Fugitive Emissions Rule,⁷⁵ which was first published Dec. 19, 2008. The Fugitive Emissions Rule would require that fugitive emissions—various unintended or irregular releases of gases from pressurized equipment and pipes due to leaks, etc.—be included in determining whether a physical or operations change results in a major modification in sources that have been designated through rulemaking under section 302(j) of the CAA. The stay is intended to provide EPA sufficient time to take public comment on, and issue a final action concerning, the inclusion of the fugitive emissions in the PSD program.

ii. New Source Review Enforcement

In *United States v. Midwest Generation*,⁷⁶ the United States and Illinois sought injunctive relief and civil penalties against the operator of six coal-fired plants in Illinois that had been modified by the previous owner without first obtaining preconstruction PSD permits. The government argued that Midwest was committing a continuing violation of § 165 of CAA for each day that it continued to operate the plants without the preconstruction permits. The court granted Midwest's motion to dismiss all but one of the government's PSD claims, concluding that there was no statutory basis for holding the current operator liable for the previous owner's unpermitted modifications to the plants. The court further held that the government's claims for monetary damages were time-barred under 28 U.S.C. § 2462.

⁷² PSD and NSR: Aggregation; Reconsideration, 75 Fed. Reg. 19,567 (April 15, 2010).

⁷³ *NRDC v. EPA*, No. 09-1103 (D.C. Cir. filed March 16, 2009) (currently held in abeyance pending EPA review of NRDC's petition).

⁷⁴ PSD and Nonattainment NSR: Aggregation, 75 Fed. Reg. 27,643 (May 18, 2010).

⁷⁵ PSD and Nonattainment NSR: Inclusion of Fugitive Emissions; Final Rule; Stay, 75 Fed. Reg. 16,012 (March 31, 2010).

⁷⁶ 694 F. Supp. 2d 999 (N.D. Ill. 2010).

In *Sierra Club v. Otter Tail Power Co.*,⁷⁷ the Sierra Club sued the owners and operators of a coal-fired power plant alleging violations of the CAA by failing to obtain PSD permits before undertaking certain modifications to the plant and by continuing to operate the plant without such permits. Sierra Club further alleged that certain modifications triggered NSPS emission limits, and that Otter Tail was operating the plant in violation of those limits. The district court granted Otter Tail's motion to dismiss and Sierra Club appealed.

The Eighth Circuit affirmed the district court, holding that the PSD claims were time-barred by the five-year statute of limitations in 28 U.S.C. § 2462 because those claims accrued at the time of the modifications and because the CAA and its implementing regulations did not impose a continuing duty to obtain a PSD permit.⁷⁸ The Eighth Circuit also affirmed the dismissal of the NSPS claim, agreeing with the district court that the Sierra Club was barred from challenging Otter Tail's Title V operating permit because "Sierra Club's NSPS claim could have been raised during the permitting process for the 2001 modifications at Big Stone."⁷⁹ Furthermore, in reaching this holding, the court rejected Sierra Club's assertion that § 7607(b)(2) did not apply because EPA had failed to object to the permit. The court held: "EPA's failure to object within 45 days of the proposed permit's submission allowed Otter Tail's amended permit to be issued and also perfected Sierra Club's right to petition for an objection. That result followed regardless of whether EPA had affirmatively decided not to object or whether it had declined to review the proposed permit at all."⁸⁰

III. Conclusion

Considering the wide range of Clean Air Act regulatory activity EPA undertook in 2010 and the legal challenges and controversy that have followed, it would be hard to imagine that 2011 could offer the same level of Clean Air Act excitement as 2010. However, with the composition of the Congress shifting during the 2010 midterm elections, and a number of challenges to EPA's regulation of greenhouse gases working their way through the federal court system, 2011 could well end with significant increases or decreases in EPA authority, particularly with respect to greenhouse gas regulation. Meanwhile, important regulations of conventional pollutants are forthcoming this year affecting emissions control obligations in the coming years. Moreover, as 2011 unfolds, the course of these issues likely will prove to be central issues in environmental law, policy, and politics until at least the 2012 elections.

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The opinions expressed here do not represent those of BNA, which welcomes other points of view.

⁷⁷ 615 F.3d 1008 (8th Cir. 2010).

⁷⁸ *Id.* at 1018.

⁷⁹ *Id.* at 1020.

⁸⁰ *Id.* at 1021.