EPA Regulations: Too Much, Too Little, or On Track?

James E. McCarthy
Specialist in Environmental Policy

Claudia Copeland
Specialist in Resources and Environmental Policy

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Summary

In the two years since Barack Obama was sworn in as President, the Environmental Protection Agency (EPA) has proposed and promulgated numerous regulations implementing the pollution control statutes enacted by Congress. Critics have reacted strongly. Many, both within Congress and outside of it, have accused the agency of reaching beyond the authority given it by Congress and ignoring or underestimating the costs and economic impacts of proposed and promulgated rules. Republican leaders have promised vigorous oversight of the agency in the 112th Congress, and the House has already voted to overturn specific regulations and to limit the agency's authority. Particular attention is being paid to the Clean Air Act, under which EPA has moved forward with the first federal controls on emissions of greenhouse gases and addressed conventional pollutants from a number of industries.

Environmental groups disagree that the agency has overreached, and EPA itself maintains that its pace of regulation under the Clean Air Act is actually slower than the pace during the first years of the Clinton and George W. Bush Administrations. The agency states that critics' focus on the cost of controls obscures the benefits of new regulations, which, it estimates, far exceed the costs; and it maintains that pollution control is an important source of economic activity, exports, and American jobs.

This report provides background information on recent EPA rulemaking to help address these issues. It examines 43 major or controversial regulatory actions taken by or under development at EPA since January 2009, providing details on the regulatory action itself, presenting an estimated timeline for completion of the rule (including identification of related court or statutory deadlines), and, in general, providing EPA's estimates of costs and benefits, where available.

The report also discusses factors that affect the timeframe in which regulations take effect, including statutory and judicial deadlines, public comment periods, judicial review, and permitting procedures, the net results of which are that existing facilities are likely to have several years before being required to comply with most of the regulatory actions under discussion. Unable to account for such factors, which will vary from case to case, timelines that show dates for proposal and promulgation of EPA standards effectively underestimate the complexities of the regulatory process and overstate the near-term impact of many of the regulatory actions.

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Introduction

Is EPA on Target or Overreaching? Conflicting Views

In the two years since Barack Obama was sworn in as President of the United States, the Environmental Protection Agency (EPA) has proposed and promulgated numerous regulations under the 11 pollution control statutes Congress has directed it to implement.[1] Although most of these statutes have not been amended for more than a decade, the agency is still addressing for the first time numerous directives given it by Congress. The statutes also mandate that EPA conduct periodic reviews of many of the standards it issues, and the agency is doing so.

Although supporters would say that EPA is just doing its job, the agency's recent regulatory actions have drawn attention for several reasons. In some cases, such as regulation of greenhouse gas emissions, they represent a new departure; based on a 2007 Supreme Court ruling that the emissions in question *are* air pollutants under the Clean Air Act's definition of that term,[2] the agency has undertaken numerous regulatory actions setting emission standards or laying the framework for a future regulatory structure. In other cases, the agency is revisiting emissions, effluent, and waste management regulatory decisions made during earlier Administrations and proposing more stringent standards to address pollution that persists as long as 40 years after Congress directed the agency to take action. These actions are being driven by statutory requirements to reexamine regulations, by court decisions, or because of changing technologies or new scientific information.

EPA's actions, both individually and in sum, have generated controversy. *The Wall Street Journal*, calling the current scale of EPA regulatory actions "unprecedented," says that the agency "has turned a regulatory firehose on U.S. business…."[3] Affected parties, such as the National Petrochemical & Refiners Association, have labeled the agency's actions "overreaching government regulation" and "a clear distortion of current environmental law."[4] The American Enterprise Institute has stated that EPA "is engaged in a series of rule-making proceedings of extraordinary scope and ambition."[5]

Both Democrats and Republicans in Congress have expressed concerns, through bipartisan letters commenting on proposed regulations and through introduced legislation that would delay, limit, or prevent certain EPA actions.[6] Senior Republicans in the House and Senate have stated that they

[1] For a summary of each of the 11 statutes and their principal requirements, see CRS Report RL30798, *Environmental Laws: Summaries of Major Statutes Administered by the Environmental Protection Agency*, coordinated by David M. Bearden.

[2] See CRS Report R40984, *Legal Consequences of EPA's Endangerment Finding for New Motor Vehicle Greenhouse Gas Emissions*, by Robert Meltz.

[3] *The Wall Street Journal*, "The EPA Permitorium," editorial, November 22, 2010.

[4] NPRA, "NPRA Says Court Decision on GHGs Bad for Consumers," December 10, 2010, at http://www.npra.org/newsRoom/?fa=viewCmsItem&title=Latest%20News&articleID=5980.

[5] AEI, "The EPA's Ambitious Regulatory Agenda," Conference, November 8, 2010, at http://www.aei.org/event/100334#doc.

[6] For a discussion of some of these congressional actions, see CRS Report R41212, *EPA Regulation of Greenhouse Gases: Congressional Responses and Options*, by James E. McCarthy and Larry Parker.

are committed to vigorous oversight of the agency's actions during the 112th Congress,[7] with some threatening to withhold funding if the agency continues on its present course.[8]

EPA Administrator Lisa Jackson has not been silent as the agency's actions have come under attack. In a November 2010 letter to the ranking members of the Energy and Commerce Committee and its Subcommittee on Oversight and Investigations, she stated:

> The pace of EPA's Clean Air Act regulatory work under this administration is actually not faster than the pace under either of the two previous administrations. In fact, EPA has finalized or proposed fewer Clean Air Act rules (87) over the past 21 months than in the first two years of either President George W. Bush's administration (146) or President Clinton's administration (115).[9]

Furthermore, addressing only the costs of prospective EPA regulations presents an incomplete picture, according to the Administrator: the benefits of recent Clean Air Act rules exceed their cost by 13 to 1, according to EPA documents.[10] The November letter also argued that EPA regulations have a positive impact on employment in the United States. The pollution control industry is a major source of economic activity, exports, and American jobs, according to Commerce Department data cited in the Administrator's letter.[11]

Environmental groups generally believe that the agency is moving in the right direction, but in several cases they would like the regulatory actions to be stronger.[12] Many also fear that recent decisions to delay the issuance or implementation of several standards are bad omens. Commenting on EPA's December 2010 request to delay the issuance of standards for boilers, Clean Air Watch stated, "… there is an unfortunate appearance here that political pressure from Congress is affecting the situation. That EPA is running scared."[13]

It is not this report's purpose to render a verdict on whether EPA is overreaching, running scared, or following the directions and using the authorities given it by Congress. Statements characterizing EPA's actions, such as those cited above, depend on judgments as to whether the agency has correctly determined the level of stringency needed to address an environmental

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[7] See, for example, Letter of Hon. Fred Upton, Chairman-elect, House Energy and Commerce Committee, and Hon. James Inhofe, Ranking Member, Senate Environment and Public Works Committee, to EPA Administrator Lisa Jackson, December 9, 2010, at http://epw.senate.gov/public/index.cfm?FuseAction=Files.View&FileStore_id=d596d5fb-593c-4c99-b0c1-41aab15887b0. See also "A Coming Assault on the E.P.A.," New York Times, editorial, December 24, 2010.

[8] See letter of Hon. Jerry Lewis to EPA Administrator Lisa P. Jackson, November 29, 2010, p. 2, at http://op.bna.com/env.nsf/id/jstn-8bnt7t/.

[9] Letter of Lisa P. Jackson, EPA Administrator, to Hon. Joe Barton and Hon. Michael C. Burgess, November 8, 2010, p. 1. According to the letter, "All three counts include all Clean Air Act rules that amend the Code of Federal Regulations and that require the EPA Administrator's signature." Administrator Jackson's letter was written in response to an October 14 letter from Reps. Barton and Burgess in which they expressed concern regarding the cumulative impacts of new regulations being proposed under the Clean Air Act.

[10] Ibid.

[11] Ibid., p. 2.

[12] See, for example, comments of Clean Air Task Force, Earthjustice, Natural Resources Defense Council, and the Sierra Club on the proposed emission standards for boilers, as cited in CRS Report R41459, *EPA's Boiler MACT: Controlling Emissions of Hazardous Air Pollutants*, by James E. McCarthy.

[13] Clean Air Watch, "EPA Seeks Big Delay in Final Toxic Rule for Boilers," December 7, 2010, at http://blogforcleanair.blogspot.com/2010/12/epa-seeks-big-delay-in-final-toxic-rule.html.

problem, and whether the agency's actions are justified by the legislative mandates that Congress has imposed. Congress and the courts may render these judgments.

What This Report Does

This report provides a factual basis for discussion of these issues, which must ultimately be evaluated on a case-by-case basis. The report identifies and briefly characterizes major regulatory actions[14] promulgated, proposed, or under development by EPA since President Obama's inauguration in January 2009. The report uses data from EPA's Spring 2010 Semiannual Regulatory Agenda[15] and the list of economically significant reviews conducted by the Office of Management and Budget (OMB)[16] to compile a list of 43 regulatory actions proposed, promulgated, or under development by the agency. The list includes all EPA rules considered "economically significant" by OMB from January 2009 to December 2010,[17] as well as some others that were not so designated but have been widely discussed.

Each entry in this report (1) gives the name or, where appropriate, the common name of the regulatory action (e.g., the "Tailoring Rule," or the "Endangerment Finding"); (2) explains what the action does; (3) states the current status of the rule or action (e.g., proposed July 6, 2010); (4) explains the significance of the action, often providing information on estimated costs and benefits; (5) discusses the timeline for implementation, and whether there is a non-discretionary congressional deadline or a court order or remand driving its development; and (6) identifies a CRS analyst who would be the contact for further information. To simplify presentation, in some cases, we have summarized several separate regulations under one heading.

This is not a complete list of the regulations that EPA has promulgated or proposed during the first two years of the Obama Administration. Rather, it is an attempt to identify the most significant and most controversial. A complete list would be substantially longer.

A Few Caveats Regarding Timing

Not all of these rules are Obama Administration initiatives. Many began development under the Bush Administration, including several that were promulgated under that Administration and subsequently were vacated or remanded to EPA by the courts. Within the Clean Air Act group, for example, most of the major rules, including the agency's boiler rules and two of the major rules affecting electric power plants (the Clean Air Transport Rule and the MACT rule) fit that description. Other EPA actions, such as the reconsideration of the ozone air quality standard, have

[14] This report uses the terms "regulatory action," "regulation," "rule," "standard," and "guidelines" for the actions it describes. There are slight differences among these terms, which are explained, if necessary to understand how the regulatory action will be implemented. In general, "regulatory action" is the broadest of the terms and includes each of the others.

[15] U.S. EPA, *Regulatory Plan and Semiannual Regulatory Agenda*, Spring 2010, at http://www.epa.gov/regulations/documents/regagendabook-spring10.pdf.

[16] OMB, Office of Information and Regulatory Affairs (OIRA), *Historical Reports* at http://www.reginfo.gov/public/do/eoHistReviewSearch.

[17] OIRA (the regulatory affairs staff within OMB) considers a rule to be "economically significant" if it is "likely to have an annual effect on the economy of $100 million or more or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local, or tribal governments or communities." OMB, *FAQs/Resources*, at http://www.reginfo.gov/public/jsp/Utilities/faq.jsp.

actually delayed for several years implementation of Bush Administration rules that would have strengthened existing standards. All of these are described in detail below.

Several other generalizations are worth underlining:

- Many proposed and "pre-proposal" rules linger for years without being promulgated; thus, many of the EPA actions described here may not take effect for some time.[18] For those rules not yet promulgated, we have focused on rules that have statutory or court-ordered deadlines and/or that have already been the subject of significant discussion.
- If there are no deadlines, we have attempted to provide EPA's estimate of the schedule for promulgation. In some cases, EPA has not estimated a promulgation date. In those instances, we have either provided dates reported in press accounts or we have discussed the general outlook for promulgation. Experience suggests that proposal or promulgation may take longer than estimated in cases that do not have a court-ordered deadline.
- Although they are the most likely deadlines to be met, even court-ordered dates for proposal or promulgation may change. It is not uncommon for EPA to request extensions of time, often due to the need to analyze extensive comments.
- Promulgation of standards is not the end of the road. Virtually all major EPA regulatory actions are subjected to court challenge, frequently delaying implementation for years. As noted earlier, many of the regulatory actions described here are the result of courts remanding and/or vacating rules promulgated by previous administrations.
- In many cases, EPA rules must be adopted by states to which the program has been delegated. Moreover, many states require that the legislature review new regulations before the new rules would take effect.
- Standards for stationary sources under the air, water, and solid waste laws are generally implemented through permits, which would be individually issued by state permitting authorities after the standards take effect. When finalized, a permit would generally include a compliance schedule, typically giving the permittee several years for installation of required control equipment. Existing sources generally will have several years following promulgation and effective dates of standards, therefore, to comply with any standards.

In short, the road to EPA regulation is rarely a straight path. There are numerous possible causes of delay. It would be unusual if the regulatory actions described here were all implemented on the anticipated schedule, and even if they were, existing facilities would often have several years before being required to comply.

[18] They may also be substantially altered before they become final, as a result of the proposal and public comment process, and/or judicial review.

Conclusions

In the 111th Congress, a number of EPA's regulatory actions were the subject of legislative proposals, including stand-alone bills that would have delayed or prohibited EPA actions, resolutions of disapproval under the Congressional Review Act, and potential riders on EPA's FY2010 appropriation. None of these measures passed. One (Senator Murkowski's S.J.Res. 26, a resolution to disapprove—and thus overturn—EPA's greenhouse gas [GHG] endangerment finding) was voted on.[19]

Notwithstanding the absence of congressional enactments, criticism of EPA actions grew as the number and scope of agency proposals increased: especially toward the end of the last Congress, EPA was on the receiving end of numerous letters from the House and Senate, many of them bipartisan in nature, asking the Administrator to delay or reconsider proposed agency actions. In the wake of the November elections, the number of members critical of EPA's regulatory agenda has grown.

The situation is particularly contentious for regulatory actions involving greenhouse gases. Although Administrator Jackson and President Obama have repeatedly expressed their preference for Congress to take the lead in designing a GHG regulatory system, EPA maintains that, in the absence of congressional action, it must proceed to regulate GHG emissions using existing authority: a 2007 Supreme Court decision (*Massachusetts v. EPA*) compelled EPA to consider whether GHGs are air pollutants that endanger public health and welfare, and if it so determined, to embark on a regulatory course that is prescribed by the Clean Air Act. Having made an affirmative decision on the endangerment question, EPA is now proceeding on that regulatory course.

Opponents of this effort in Congress, who maintain that the agency is exceeding its authority, are considering various approaches to alter the agency's course. This situation is likely to result in numerous oversight hearings and specific legislative proposals in the 112th Congress. These criticisms are reflected, for example, in House passage on February 19 of H.R. 1, a continuing resolution (CR) providing FY2011 full-year funding for EPA and other federal agencies and departments. As passed by the House, the bill included specific funding levels for a number of EPA accounts and activities. It also contained more than 20 provisions restricting or prohibiting the use of appropriated funds to implement various regulatory activities under the EPA's jurisdiction—including many discussed in this report.[20] The House Energy and Commerce Committee has also approved legislation to restrict EPA authority and to repeal a dozen EPA regulatory actions dealing with greenhouse gases (H.R. 910). A Senate counterpart (S. 482) was debated as an amendment to S. 493 during the week of March 14. Beyond the criticism of individual regulations, there also are calls for broad regulatory reforms, for example to reinforce the role of economic considerations in agency decision making or to increase Congress's role in approving or disapproving regulatory decisions.

[19] On June 10, 2010, the Senate voted 47-53 not to proceed to debate the resolution.

[20] For information, see CRS Report R41698, *H.R. 1 Full-Year FY2011 Continuing Resolution: Overview of Environmental Protection Agency (EPA) Provisions*, by Robert Esworthy. On March 9, the Senate failed to approve House-passed H.R. 1 and subsequently also did not agree to a substitute text (S.Amdt. 49) that contained different funding levels and generally omitted the EPA regulatory provisions in the House-passed bill.

Organization of the Report

This report organizes the regulatory actions it describes under five headings: Clean Air Act and Climate Change; Clean Water Act; Safe Drinking Water Act; Toxic Substances Control Act; and RCRA/Superfund. A majority of the rules (26 of the 43) are being developed under the regulatory authority of the Clean Air Act. To help organize the presentation of these 26, we have grouped rules addressing specific issues (e.g., climate change, ambient air quality standards, etc.) together under subheadings. Following the text, the information is summarized in the form of a table, with the rules presented in the same order as in the text.

Clean Air Act and Climate Change

Climate Change

1. **Greenhouse Gas Reporting Rule.** On October 30, 2009, in response to a congressional mandate in EPA's FY2008 appropriation (P.L. 110-161), EPA promulgated the Greenhouse Gas Reporting Rule.[21] The rule will require 31 categories of sources to report their emissions of greenhouse gases to EPA annually, beginning in 2011, if the sources emit 25,000 tons or more of carbon dioxide or the equivalent amount of five other greenhouse gases (GHGs).[22] (Eleven other categories of sources have since been added to the rule.) By itself, the rule imposes little cost ($867 per facility, according to EPA's estimate) because it only requires reporting; but the sources who are required to report are expected to be the focus of EPA efforts as the agency develops regulations to control emissions of GHGs. For additional information, contact Jim McCarthy (7-7225, jmccarthy@crs.loc.gov).

2. **Greenhouse Gas Endangerment Finding.** On December 15, 2009, EPA issued findings that six greenhouse gases cause or contribute to air pollution that endangers public health and welfare.[23] The action was taken in response to an April 2007 Supreme Court decision (*Massachusetts v. EPA*) that required the agency to decide the issue or to conclude that climate change science is so uncertain as to preclude making such findings. These findings do not themselves impose any requirements on industry or other entities. However, the action was a prerequisite to finalizing EPA's greenhouse gas emission standards for cars and light duty trucks, which were jointly promulgated by EPA with fuel economy standards from the Department of Transportation, on May 7, 2010. These, in turn, triggered permit requirements for stationary sources of GHGs, beginning January 2, 2011. On December 10, 2010, the U.S. Court of Appeals for the D.C. Circuit denied industry and state motions to stay the endangerment finding and related regulations. The court's order applied to 84 cases filed by a variety of industry groups and

[21] U.S. Environmental Protection Agency, "Mandatory Reporting of Greenhouse Gases; Final Rule," 74 *Federal Register* 56260, October 30, 2009.

[22] GHG emissions consist of carbon dioxide (CO_2), methane, nitrous oxide (N_2O), sulfur hexafluoride (SF_6), and two categories of gases—hydrofluorocarbons (HFCs) and perfluorocarbons (PFCs). Since each of these substances has a different global warming potential, the emissions of each are converted to the equivalent amount of CO_2 emissions, based on how potent the substance is as compared to CO_2, giving rise to the term "CO_2-equivalent."

[23] U.S. Environmental Protection Agency, "Endangerment and Cause or Contribute Findings for Greenhouse Gases Under Section 202(a) of the Clean Air Act," 74 *Federal Register* 66496, December 15, 2009.

states (*Coalition for Responsible Regulation v. EPA*). For additional information, contact Jim McCarthy (7-7225, jmccarthy@crs.loc.gov).

3. **Light Duty Motor Vehicle Greenhouse Gas Rule.** On May 7, 2010, EPA and the National Highway Traffic Safety Administration (NHTSA) promulgated integrated GHG emission standards and corporate average fuel economy (CAFE) standards for new cars and light trucks, a category that includes SUVs and minivans, as well as pickup trucks.[24] NHTSA is required by the Energy Independence and Security Act of 2007 (EISA, P.L. 110-140) to promulgate CAFE standards so that by 2020, new cars and light trucks reach a combined average fuel economy of 35 miles per gallon (mpg). EPA simultaneously issued vehicle greenhouse gas standards in response to directives from the Supreme Court in *Massachusetts v. EPA*. The regulations would require an increase in fuel economy to as much as 35.5 mpg by model year 2016, four years ahead of the deadline set in EISA. The Administration estimates that complying with the proposal will add $1,100 to the cost of an average vehicle, although this additional purchase cost is expected to be paid back through lifetime fuel savings. The new standards will be phased in beginning with the 2012 model year. EPA estimates that the additional lifetime cost of 2012-2016 model year vehicles under the regulations will be about $52 billion; benefits are expected to be approximately $240 billion. EPA and NHTSA have also begun consideration of joint GHG/fuel economy rules for 2017-2025 model year vehicles. For additional information, contact Brent Yacobucci (7-9662, byacobucci@crs.loc.gov).

4. **Greenhouse Gas Tailoring Rule.** On June 3, 2010, EPA promulgated a rule that defines which stationary sources will be required to obtain Clean Air Act permits for GHG emissions and how the requirements will be phased in.[25] The threshold set by the rule (annual emissions of 75,000-100,000 tons of carbon dioxide equivalents) will limit which facilities will be required to obtain permits: for the next three years, the nation's largest GHG emitters, including power plants, refineries, cement production facilities, and about two dozen other categories of sources (an estimated 1,450 facilities annually) will be the only sources required to obtain permits. Smaller businesses, almost all farms, and large residential structures (about 6 million sources in all these categories), which would otherwise be required to obtain permits once GHGs became regulated pollutants under the act, are excluded by the rule's threshold limits and thus would be shielded from permitting requirements by this rule. For additional information, contact Jim McCarthy (7-7225, jmccarthy@crs.loc.gov).

5. **PSD and Title V Permit Requirements for GHG Emissions.** Beginning on January 2, 2011, new and modified major stationary sources that emit more than 75,000 tons per year of CO_2-equivalent greenhouse gases were required to obtain Prevention of Significant Deterioration (PSD) permits addressing their GHG emissions. These permits, which are mandated under Section 165 of the Clean Air Act, will require the applicants to install the Best Available Control Technology (BACT) in order to construct or operate *new and modified* major sources of emissions. State permitting authorities will determine what technologies qualify as BACT on a case-by-case basis, using generic guidance issued by EPA on November 10, 2010.[26] The

[24] U.S. Environmental Protection Agency, U.S. Department of Transportation, "Light-Duty Vehicle Greenhouse Gas Emission Standards and Corporate Average Fuel Economy Standards; Final Rule," 75 *Federal Register* 25324-25728, May 7, 2010.

[25] U.S. Environmental Protection Agency, "Prevention of Significant Deterioration and Title V Greenhouse Gas Tailoring Rule; Final Rule," 75 *Federal Register* 31514, June 3, 2010.

[26] U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards, "PSD and Title V Permitting Guidance for Greenhouse Gases," November 2010, at http://www.epa.gov/nsr/ghgdocs/epa-hq-oar-2010-0841-
(continued...)

PSD/BACT requirement will initially apply only to facilities such as power plants large enough to already be required to obtain PSD permits as a result of their emissions of other pollutants such as sulfur dioxide or nitrogen oxides. What is new starting January 2 is the addition of GHGs to the list of pollutants that must be addressed by BACT.

Existing sources that are already required to obtain operating permits under Title V of the act will also have to provide information on their GHG emissions. EPA notes that the Title V requirement will generally be satisfied by referencing information already provided to EPA under the GHG reporting rule (item 1, above). Title V permits do not impose emission control requirements themselves; they simply summarize emission control requirements mandated by other sections of the Clean Air Act. Thus, the only change to Title V permits will be the addition of GHGs to the list of pollutants that the facilities are allowed to emit. For additional information on PSD and Title V permits, contact Larry Parker (7-7238, lparker@crs.loc.gov).

6. **Medium- and Heavy-Duty Vehicle Greenhouse Gas Rule.** On November 30, 2010, EPA and the National Highway Traffic Safety Administration (NHTSA) proposed integrated GHG emission standards and fuel economy standards for medium- and heavy-duty vehicles.[27] EPA's endangerment finding (item 2, above) specifically referenced medium- and heavy-duty trucks as among the sources that contribute to the GHG emissions for which it found endangerment. In addition, NHTSA was required by Section 102 of the Energy Independence and Security Act of 2007 (EISA, P.L. 110-140) to promulgate fuel economy standards for medium- and heavy-duty trucks, reflecting the "maximum feasible improvement" in fuel efficiency. The proposed standards would be phased in between 2014 and 2018. When fully implemented, they would require an average per vehicle reduction in GHG emissions of 17% for diesel trucks and 12% for gasoline-powered trucks. The expected cost increase for the 2014-2018 vehicles affected by the rule is $7.7 billion. EPA projects benefits of $49 billion over the trucks' lifetimes, including more than $40 billion in fuel savings. For additional information, contact Brent Yacobucci (7-9662, byacobucci@crs.loc.gov).

7. **NSPS for Petroleum Refineries**. On December 23, 2010, EPA announced that it was settling a lawsuit filed by 11 states, two municipalities, and three environmental groups over its 2008 decision not to establish New Source Performance Standards (NSPS) for GHG emissions from petroleum refineries. According to the agency, refineries are the second largest direct stationary source of GHGs in the United States and there are cost-effective strategies for reducing these emissions. The agency has agreed to propose NSPS for new refinery facilities and emissions guidelines for existing facilities by December 10, 2011, and to make a final decision on the proposed actions by November 10, 2012. For additional information, contact Jim McCarthy (7-7225, jmccarthy@crs.loc.gov).

Two other rules affecting GHG emissions are in the pre-proposal stage of consideration at EPA, and are discussed below in items 17 and 22.

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[27] U.S. Environmental Protection Agency, U.S. Department of Transportation, "Greenhouse Gas Emissions Standards and Fuel Efficiency Standards for Medium- and Heavy-Duty Engines and Vehicles, Proposed Rule," 75 *Federal Register* 74152-74456, November 30, 2010.

Renewable Fuels

8. **Expanded Renewable Fuel Standard (RFS2).** On March 26, 2010, EPA promulgated new rules for the renewable fuel standard (RFS) that was expanded by the Energy Independence and Security Act of 2007 (EISA, P.L. 110-140).[28] In 2010, the RFS required the use of 12.95 billion gallons of ethanol and other biofuels in transportation fuel. Within that mandate, the statute required the use of 0.95 billion gallons of advanced biofuels (fuels other than corn starch ethanol), including 100 million gallons of cellulosic biofuels. EISA also requires that advanced biofuels (as well as conventional biofuels from newly built refineries) meet certain lifecycle greenhouse gas reduction requirements. Because no commercial-scale cellulosic biofuel refineries have begun operation, the March 2010 rules reduced the mandated 2010 level for these fuels from 100 million gallons to 6.5 million gallons. The final rule also modified EPA's proposed methodology for measuring lifecycle greenhouse gas emissions. On December 21, 2010, EPA finalized the mandate for 2011.[29] Because of a similar shortfall in projected cellulosic production capacity for 2011, the mandate was waived from 250 million gallons to 6.6 million gallons. The overall mandate of 13.95 billion gallons for 2011 was maintained. For additional information, contact Brent Yacobucci (7-9662, byacobucci@crs.loc.gov).

9. **Ethanol Blend Wall Waiver.** On March 6, 2009, Growth Energy (on behalf of 52 U.S. ethanol producers) applied to EPA for a waiver from the current Clean Air Act limitation on ethanol content in gasoline. Ethanol content in gasoline has been capped at 10% (E10); the application requested an increase in the maximum concentration to 15% (E15). A waiver would allow the use of significantly more ethanol in gasoline than has been permitted under the Clean Air Act. Limiting ethanol content to 10% leads to an upper bound of roughly 15 billion gallons of ethanol in all U.S. gasoline. This "blend wall" could limit the fuel industry's ability to meet the Energy Independence and Security Act's future requirements to use increasing amounts of renewable fuels (including ethanol) in transportation.

On November 4, 2010, EPA granted a partial waiver allowing the use of E15 in Model Year (MY) 2007 vehicles and newer.[30] The agency delayed a decision on MY2001-2006 vehicles until the Department of Energy completes testing of those vehicles. On January 21, 2011, EPA announced that the waiver would be expanded to include MY2001-2006 vehicles.[31] EPA determined that data were insufficient to address concerns that had been raised over emissions from MY2000 and older vehicles, as well as heavy-duty vehicles, motorcycles and nonroad applications, and thus a waiver for these vehicles/engines was denied. EPA has noted that granting the waiver eliminates only one impediment to the use of E15—other factors, including retail and blending infrastructure, state and local laws and regulations, and manufacturers' warranties, would still need to be addressed. Because of concerns over potential damage by E15 to equipment not designed for its use, this partial waiver has been challenged in court by a group of vehicle and

[28] U.S. Environmental Protection Agency, "Regulation of Fuels and Fuel Additives: Changes to Renewable Fuel Standard Program; Final Rule," 75 Federal Register 14670-14904, March 26, 2010.

[29] U.S. Environmental Protection Agency, "Regulation of Fuels and Fuel Additives: Modifications to Renewable Fuel Standard Program; Final Rule," 75 *Federal Register* 79964, December 21, 2010.

[30] U.S. Environmental Protection Agency, "Partial Grant and Partial Denial of Clean Air Act Waiver Application Submitted by Growth Energy to Increase the Allowable Ethanol Content of Gasoline to 15 Percent; Decision of the Administrator; Notice," 75 *Federal Register* 68094-68150, November 4, 2010.

[31] U.S. Environmental Protection Agency, "Partial Grant of Clean Air Act Waiver Application Submitted by Growth Energy to Increase the Allowable Ethanol Content of Gasoline to 15 Percent; Decision of the Administrator," signed January 21, 2011 (awaiting publication in the *Federal Register*).

engine manufacturers. For additional information, contact Brent Yacobucci (7-9662, byacobucci@crs.loc.gov).

Ambient Air Quality Standards

10.-14. **Ozone, Particulates, and Other Ambient Air Quality Standards.** On January 19, 2010, EPA proposed a revision of the National Ambient Air Quality Standard (NAAQS) for ozone.[32] This standard is expected to be finalized by the end of July 2011. Two other NAAQS (for sulfur dioxide[33] and nitrogen dioxide[34]) were finalized in 2010 and EPA expects to propose revised NAAQS for particulate matter in 2011. The agency has also reviewed its carbon monoxide NAAQS, but proposed not to change the standard. NAAQS are the cornerstone of the Clean Air Act, in effect defining what EPA considers to be clean air. They do not directly limit emissions, but they set in motion a process under which "nonattainment areas" are identified and states and EPA develop plans and regulations to reduce pollution in those areas. Nonattainment designations may also trigger statutory requirements, including that new major sources offset certain emissions by reducing emissions from existing sources. Currently, there are NAAQS for six pollutants (ozone, particulate matter, sulfur dioxide, carbon monoxide, nitrogen dioxide, and lead). The Clean Air Act requires that these standards be reviewed every five years, and all of the standards have been under court-ordered deadlines for review.

The standards with the broadest impact are those for ozone and particulate matter (PM). EPA has identified at least 515 counties that would violate the proposed ozone NAAQS if the most recent three years of data currently available were used to determine attainment (compared to 85 counties that violate the currently implemented standard). EPA is prohibited by the statute from considering costs in the setting of a NAAQS, but it does prepare cost and benefit estimates for information purposes. The agency estimates that the costs of implementing the revised ozone NAAQS would range from $19 billion to $90 billion annually in 2020, with benefits of roughly the same amount. The PM NAAQS decision, to be proposed in 2011, and the sulfur dioxide (SO_2) NAAQS promulgated in June 2010 could also impose costs in the billions of dollars, although the monetized benefits of PM and SO_2 controls (primarily the avoidance of premature death) have generally far outweighed the cost estimates. For additional information, contact Jim McCarthy (7-7225, jmccarthy@crs.loc.gov).

Electric Generating Units

15. **Clean Air Transport Rule.** EPA's major clean air initiative under the Bush Administration, the Clean Air Interstate Rule (CAIR), was vacated and remanded to the agency by the D.C. Circuit Court of Appeals in 2008. EPA proposed a replacement for the rule, which it is calling the Clean Air Transport Rule, August 2, 2010,[35] and expects to finalize the rule in June 2011. The

[32] U.S. Environmental Protection Agency, "National Ambient Air Quality Standards for Ozone; Proposed Rule," 75 *Federal Register* 2938, January 19, 2010.

[33] U.S. Environmental Protection Agency, "Primary National Ambient Air Quality Standard for Sulfur Dioxide; Final Rule," 75 *Federal Register* 35520, June 22, 2010.

[34] U.S. Environmental Protection Agency, "Primary National Ambient Air Quality Standards for Nitrogen Dioxide; Final Rule," 75 *Federal Register* 6473, February 9, 2010.

[35] U.S. Environmental Protection Agency, "Federal Implementation Plans To Reduce Interstate Transport of Fine Particulate Matter and Ozone; Proposed Rule," 75 *Federal Register* 45210, August 2, 2010.

original rule, designed to control emissions of air pollution that causes air quality problems in downwind states, established cap-and-trade programs for sulfur dioxide and nitrogen oxide emissions from coal-fired electric power plants in 28 Eastern states, at an estimated annual cost of $6.1 billion in 2020. Benefits were estimated to be at least $120 billion annually, with an annual 22,000 premature deaths avoided. The replacement rule proposed in July 2010 applies to 31 states; its annual cost is estimated at $2.2 billion, with benefits of $120 billion to $290 billion annually.

Given the need to meet the more stringent NAAQS (especially those for ozone and PM) that EPA is proposing and promulgating, the agency stated its intention to propose a further set of requirements addressing interstate transport of air pollution in 2011. For additional information, contact Jim McCarthy (7-7225, jmccarthy@crs.loc.gov) or Larry Parker (7-7238, lparker@crs.loc.gov).

16.-17. **NSPS and MACT for Coal-Fired Power Plants.** In 2005, EPA promulgated regulations establishing a cap-and-trade system to limit emissions of mercury from coal-fired power plants. The rules were challenged, and the D.C. Circuit Court of Appeals vacated them in 2008. Rather than appeal the ruling to the Supreme Court, EPA agreed to propose Maximum Achievable Control Technology (MACT) standards by March 2011 and promulgate final standards by November 2011. The proposed standards, released March 16, are already being met by 56% of coal- and oil-fired electric generating units; the other 44% would be required to install technology that will reduce mercury and acid gas emissions by 91%, at an annual cost of $10.9 billion. EPA estimates that the annual benefits, including the avoidance of up to 17,000 premature deaths annually, will be between $59 billion and $140 billion. Following promulgation of these standards, existing power plants will have three years, with a possible one-year extension, to meet the standards. About 20 states have already established mercury emission control standards for coal-fired power plants, and other major sources have been controlled for as long as 15 years, reducing their emissions as much as 95%.

EPA has stated that it will coordinate a review of the New Source Performance Standards (NSPS) to consider greenhouse gas emission standards for electric generating units at the same time as it develops the MACT standards. Electric generating units are the largest U.S. source of both greenhouse gas and mercury emissions, accounting for about one-third of all GHG emissions in addition to nearly half of U.S. mercury emissions. Thus, these rules are expected to be among the most controversial rules to be issued by EPA this year. On December 23, 2010, EPA released the text of a settlement agreement with 11 states, two municipalities, and three environmental groups, under which it agreed to propose the NSPS for power plants by July 26, 2011, and take final action on the proposal by May 26, 2012. For additional information, contact Jim McCarthy (7-7225, jmccarthy@crs.loc.gov) or Larry Parker (7-7238, lparker@crs.loc.gov).

Boilers and Incinerators

18.-19. **MACT and Area Source Standards for Boilers.** EPA proposed Maximum Achievable Control Technology standards to control emissions of toxic air pollutants from commercial and industrial boilers in June 2010.[36] A final rule was issued February 21, 2011, under a court order by

[36] U.S. Environmental Protection Agency, "National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters; Proposed Rule," 75 *Federal Register* 32006, June 4, 2010.

the D.C. Circuit Court of Appeals. Because of voluminous comments and new information received from industry during a public comment period, EPA had asked the court to extend the deadline for promulgating final standards to April 2012. Having been denied that extension, the agency issued a statement saying, "The standards will be significantly different than what EPA proposed…. The agency believes these changes still deserve further public review and comment and expects to solicit further comment through a reconsideration of the rules."[37] The agency initiated a reconsideration on the same day that it released the final rule.

Boilers are used throughout industry and in many commercial and institutional facilities. The D.C. Circuit vacated EPA's previous MACT rule for this category in 2007, saying EPA had wrongly excluded many industrial boilers from the definition of solid waste incinerators, which have more stringent emissions requirements under the Clean Air Act. The vacated rule had estimated annual costs of $837 million, with a benefit-cost ratio of about 20 to 1. The February 2011 rule would set more stringent standards. It would affect 13,840 boilers, according to the agency, with annual costs estimated at $1.4 billion and benefits of $22 billion to $54 billion annually, including the avoidance of 2,500 to 6,500 premature deaths.

EPA also proposed what are called "area source" standards for smaller boilers at the same time as the MACT.[38] The area source standards would affect 187,000 boilers, most of which would only be required to perform a tune-up every two years to comply with the regulations. EPA estimated the net cost of the area source rule to be $487 million annually, with partial benefits ranging from $210 million to $520 million annually. For additional information, contact Jim McCarthy (7-7225, jmccarthy@crs.loc.gov).

20. **Commercial and Industrial Solid Waste Incinerator (CISWI) Standards.** A third regulation proposed at the same time as the boiler MACT and area source boiler rules would set standards for emissions from commercial and industrial solid waste incinerators.[39] These standards are related to the D.C. Circuit's remand of the boiler rules in 2007, and also faced a judicial deadline of February 21, 2011. The rules would expand the number of existing facilities subject to the more stringent CISWI standards from 20 to 88, with annual costs of $232 million, according to EPA, and benefits of $360 million-$870 million annually. For additional information, contact Jim McCarthy (7-7225, jmccarthy@crs.loc.gov).

21. **Standards for Sewage Sludge Incinerators.** On October 14, 2010, EPA proposed emission standards for sewage sludge incinerators (SSI).[40] SSI units, typically located at wastewater treatment facilities, burn dewatered sludge. The standards would limit emissions of mercury and four other hazardous air pollutants, as well as particulates and other conventional pollutants. There are currently 218 SSI units, according to EPA, and the total cost of compliance could be as

[37] U.S. EPA, "EPA Announces Next Steps on Emissions Standards for Boilers, Certain Incinerators," Press Release, January 20, 2011, at http://yosemite.epa.gov/opa/admpress.nsf/6424ac1caa800aab85257359003f5337/58f5bee5e13c61228525781e007e9881.

[38] U.S. Environmental Protection Agency, "National Emission Standards for Hazardous Air Pollutants for Area Sources: Industrial, Commercial, and Institutional Boilers; Proposed Rule," 75 *Federal Register* 31896, June 4, 2010.

[39] U.S. Environmental Protection Agency, "Standards of Performance for New Stationary Sources and Emission Guidelines for Existing Sources: Commercial and Industrial Solid Waste Incineration Units; Proposed Rule," 75 *Federal Register* 31938, June 4, 2010.

[40] U.S. Environmental Protection Agency, "Standards of Performance for New Stationary Sources and Emission Guidelines for Existing Sources: Sewage Sludge Incineration Units; Proposed Rule," 75 *Federal Register* 63260, October 14, 2010.

much as $105 million annually, with benefits ranging from $130 million to $320 million annually. For additional information, contact Jim McCarthy (7-7225, jmccarthy@crs.loc.gov).

Other

22. **Emission Standards for Portland Cement Manufacturing.** On September 9, 2010, EPA promulgated New Source Performance Standards (NSPS) for conventional pollutants from new cement kilns and Maximum Achievable Control Technology standards for hazardous air pollutants from both existing and new sources in the Portland cement manufacturing industry.[41] When fully implemented in 2013, the standards will require a 92% reduction in emissions of both particulate matter and mercury and a 97% reduction in emissions of acid gases, according to EPA, as well as controlling other pollutants. EPA had previously issued emission standards for this industry in 1999, but the standards were challenged in court and remanded to the agency by the D.C. Circuit Court of Appeals. The new rules reflect EPA's reconsideration of the standards.

The agency estimates that it will cost the industry $350 million annually to comply with the standards, but that benefits (including the avoidance of 960 to 2,500 premature deaths in people with heart disease) will be worth $6.7 billion to $18 billion annually. The trade association representing the industry says the standards will cause some facilities to close.

Further regulation of this industry, which is the third highest U.S. source of carbon dioxide emissions, is under consideration: when EPA announced the revised rules, it stated in the preamble to the rule that it is "working towards a proposal for GHG standards" for these plants.[42] For additional information, contact Jim McCarthy (7-7225, jmccarthy@crs.loc.gov).

23.-24. **Stationary Internal Combustion Engines.** EPA set standards for both compression-ignition[43] (generally diesel) and spark ignition (generally gasoline) stationary engines[44] in 2010. The regulations would affect piston-driven (reciprocating) stationary engines, such as emergency power generators used by hospitals and other sources and electric power generators used for compressors and pumps by a wide array of industrial, agricultural, and oil and gas industry sources. The rules are referred to as the RICE (Reciprocating Internal Combustion Engine) rules. They apply to engines that meet specific siting, age, and size criteria (generally engines of 500 horsepower or less). EPA estimates that more than 1.2 million engines will be affected by the regulations. Depending on the type of engine, owners will have to install pollution control equipment or follow certain work practice standards, such as burning low sulfur fuel or conducting oil changes and inspections. EPA estimates the health benefits of the two rules will be between $1.45 billion and $3.5 billion annually by 2013. Annualized costs for the rules are estimated to be $626 million in 2013. For additional information, contact Jim McCarthy (7-7225, jmccarthy@crs.loc.gov).

[41] U.S. Environmental Protection Agency, "National Emission Standards for Hazardous Air Pollutants from the Portland Cement Manufacturing Industry and Standards of Performance for Portland Cement Plants; Final Rule," 75 *Federal Register* 54970, September 9, 2010.

[42] Ibid., p. 54997.

[43] U.S. Environmental Protection Agency, "National Emission Standards for Hazardous Air Pollutants: Reciprocating Internal Combustion Engines; Final Rule," 75 *Federal Register* 9648, March 3, 2010.

[44] U.S. Environmental Protection Agency, "National Emission Standards for Hazardous Air Pollutants for Reciprocating Internal Combustion Engines; Final Rule," 75 *Federal Register* 51570, August 20, 2010.

25.-26. **Ocean-Going Ships.** EPA took two steps to control emissions from ocean-going ships in 2009 and 2010. It promulgated emission standards for new marine engines[45] and it proposed the establishment of Emission Control Areas extending 200 nautical miles off most U.S. shores.[46] In the Emission Control Areas (ECAs), which received final approval in March 2010, both U.S. and foreign ships would be required to use low sulfur fuel. In both cases, the actions reflect international standards that the United States and other maritime nations have agreed to under the International Convention for the Prevention of Pollution from Ships (MARPOL). EPA estimated the cost of these two initiatives at over $3 billion annually by 2030, mostly attributable to the cleaner fuel requirement. The agency also estimated that monetized benefits of the requirements will exceed costs by more than 30 to 1. The proposal and the new standards were supported by both industry and environmental groups. For additional information, contact Jim McCarthy (7-7225, jmccarthy@crs.loc.gov).

Clean Water Act

27. **Construction Site Effluent Limitation Guidelines.** On December 1, 2009, EPA promulgated regulations under the Clean Water Act (CWA), called effluent limitation guidelines (ELGs), to limit pollution from stormwater runoff at construction sites.[47] The rule, called the Construction and Development ELG, took effect February 1, 2010. OMB determined that it is an economically significant rule. It requires construction sites that disturb one or more acres of land to use erosion and sediment control best management practices to ensure that soil disturbed during construction activity does not pollute nearby waterbodies. For construction sites disturbing 10 acres or more, the rule established, for the first time, enforceable numeric limits on stormwater runoff pollution. EPA issued the rule in response to a 2004 lawsuit filed by an environmental group; in 2006, a federal court ordered EPA to issue a final rule by December 1, 2009. The rule affects about 82,000 firms involved in residential, commercial, highway, street, and bridge construction. EPA has issued effluent guidelines for 56 industries that include many types of discharges, such as manufacturing and service industries. These guidelines are implemented in discharge permits issued by states and EPA. Several industry groups challenged the Construction and Development ELG. In response, EPA examined the data set underlying a portion of the rule and concluded that it improperly interpreted the data. In August 2010, a federal appeals court granted EPA's request for remand of a portion of the rule to conduct a rulemaking to correct the numeric effluent limitation, which EPA expects to promulgate early in 2011 with an effective date of June 29, 2011. On November 5, 2010, EPA promulgated a direct final rule to stay the effectiveness of the 2009 rule until a revised rule is developed.[48] For additional information, contact Claudia Copeland (7-7227, ccopeland@crs.loc.gov).

[45] U.S. Environmental Protection Agency, "Control of Emissions from New Marine Compression-Ignition Engines at or Above 30 Liters per Cylinder; Final Rule," 75 *Federal Register* 22896, April 30, 2010.

[46] International Maritime Organization, Marine Environmental Protection Committee, "Proposal to Designate an Emission Control Area for Nitrogen Oxides, Sulphur Oxides and Particulate Matter, Submitted by the United States and Canada," April 2, 2009, at http://www.epa.gov/oms/regs/nonroad/marine/ci/mepc-59-eca-proposal.pdf.

[47] U.S. Environmental Protection Agency, "Effluent Limitation Guidelines for the Construction and Development Point Source Category," 74 *Federal Register* 62996-63058, December 1, 2009.

[48] U.S. Environmental Protection Agency, "Direct Final Rule Staying Numeric Limitation for the Construction and Development Point Source Category," 75 *Federal Register* 68215-68217, November 5, 2010.

28. **Airport Deicing Effluent Limitation Guidelines.** In August 2009, EPA proposed regulations under the CWA to limit water pollution from aircraft and airport runway deicing operations.[49] The proposed rule would apply to 218 airports and would require them to recover at least a specified portion of available deicing/anti-icing fluid after it is sprayed on aircraft, meet a specified effluent limit for wastewater collected and discharged, and certify that they use pavement deicers that do not contain urea. In general, it would require large airports to collect 60% of deicing fluid and treat or reuse it. The estimated cost of the rule is $91 million, making it a significant but not "economically significant" rule. The proposed rule has been under development for several years and is part of ongoing EPA activities under the CWA to regulate wastewater discharges from categories of industries through new and revised effluent limitation guidelines. There is no legal deadline, but EPA expects to promulgate a final rule by March 2011. For additional information, contact Claudia Copeland (7-7227, ccopeland@crs.loc.gov).

29. **Pesticide Application General Permit**. EPA is developing a CWA general permit to control pesticides that are applied to waters of the United States, such as aerial application of insecticide to control mosquitoes. The general permit will be issued in response to a 2009 federal court decision that invalidated a 2006 EPA rule, which had codified the agency's long-standing view that pesticide applications that comply with federal pesticides law do not require CWA permits. The federal court's order requiring EPA to issue permits takes effect April 9, 2011. EPA proposed a draft permit June 4, 2010.[50] The estimated universe of affected activities is approximately 5.6 million applications annually, which are performed by 365,000 applicators. EPA was expected to finalize the permit by December 2010. However, on March 3, the government asked the court to grant an additional stay—until October 31—of the effective date of the court's ruling, because the agency is still completing work on the final permit. Under OMB's criteria, it is a significant rule, but "economically significant."[51] Meanwhile, two House committees have approved legislation (H.R. 872) that is intended to overturn the court's 2009 ruling by exempting aerial pesticide application activities from clean water permit requirements. For additional information, contact Claudia Copeland (7-7227, ccopeland@crs.loc.gov).

30. **Florida Nutrient Water Quality Standards.** The CWA directs states to adopt water quality standards for their waters and authorizes EPA to promulgate new or revised standards if a state's actions fail to meet CWA requirements. Water quality standards consist of designated uses, criteria to protect the designated uses, and an antidegradation statement. They serve as the framework for pollution control measures specified for individual sources. Because of severe water quality impairment of Florida waters by nutrients (nitrogen and phosphorus) from diverse sources including agriculture and livestock, municipal and industrial wastewater discharges, and urban stormwater runoff, EPA determined in 2009 that Florida's existing *narrative* water quality standards for nutrients must be revised in the form of *numeric* criteria that will enable Florida to

[49] U.S. Environmental Protection Agency, "Effluent Limitation Guidelines and New Source Performance Standards for the Airport Deicing Category; Proposed rule," 74 *Federal Register* 44676-44718, August 28, 2009.

[50] U.S. Environmental Protection Agency, "Draft National Pollutant Discharge Elimination System (NPDES) Pesticide General Permit for Point Source Discharges From the Application of Pesticides," 75 *Federal Register* 31775-31785, June 4, 2010.

[51] "Significant" rules are a broader OMB category that includes not only the economically significant (i.e., primarily those with an annual effect on the economy of $100 million or more), but also rules that "create a serious inconsistency or otherwise interfere with an action taken or planned by another agency"; "materially alter the budgetary impact of entitlements, grants, user fees, or loan programs or the rights and obligations of recipients thereof"; or "raise novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth" in Executive Order 12866.

better control nutrient pollution. In 2009 EPA entered into a consent decree with environmental litigants requiring the agency to promulgate numeric nutrient water quality standards for Florida. To meet the legal deadline, EPA promulgated the first phase of these standards on December 5, 2010.[52] In response to criticism of the standards, EPA delayed the effective date of the final rule for 15 months, to allow local governments, businesses, and the state of Florida time to review the standards and develop implementation strategies. Nevertheless, separate legal challenges to the rule have been filed in federal court by environmental advocates, the state of Florida, and others. The second phase of standards is due to be issued by October 2011. Water quality standards do not have the force of law until the state translates them into permit limits or otherwise imposes pollution control requirements on dischargers in the state. The rule will not establish any requirements directly applicable to regulated entities or other sources of nutrient pollution. While few dispute the need to reduce nutrients in Florida's waters, EPA's rule has been controversial, involving disputes about the data underlying the proposal, potential costs of complying with numeric standards when they are incorporated into discharge permit limitations, and disputes over administrative flexibility. EPA estimated that the potential incremental costs associated with the rule range from $16 million to $25 million per year, and monetized benefits of $28 million per year. Many stakeholders contend that EPA has greatly underestimated costs. The rule was determined by OMB to be a significant regulatory action, but not "economically significant." For additional information, contact Claudia Copeland (7-7227, ccopeland@crs.loc.gov).

31. **Chesapeake Bay TMDL**. Pursuant to a court-ordered schedule, EPA has developed a plan, called a Total Maximum Daily Limit (TMDL), to restore nutrient-impaired waters of the Chesapeake Bay. The TMDL is required because states in the Chesapeake Bay watershed have failed to meet deadlines to attain water quality goals for the Bay, thus triggering Clean Water Act requirements that the federal government must develop a plan to do so. The TMDL is not a regulation. A TMDL represents the maximum amount of a pollutant that a body of water may receive and still meet its water quality standards. Individual actions needed to meet the overall pollutant limits specified in the TMDL, such as discharge permit limits or other controls, are to be developed by the Chesapeake Bay states in Watershed Implementation Plans. The Chesapeake Bay TMDL is the largest ever developed by EPA or any state, since it will apply to all impaired waters of the 64,000 square miles of the six states in the Bay watershed. On December 29, 2010, EPA issued the TMDL, thus meeting its self-imposed December 31 deadline to do so.[53] For additional information, contact Claudia Copeland (7-7227, ccopeland@crs.loc.gov).

32. **Revised Stormwater Rule.** EPA is exploring regulatory options to strengthen the existing regulatory program for managing stormwater, which is a significant source of water quality impairments nationwide. Under the current program, large cities and most industry sources are subject to CWA rules issued in 1990; smaller cities, other industrial sources, and construction sites are covered by rules issued in 1999. EPA is considering options to strengthen stormwater regulations, including establishing post-construction requirements for stormwater discharges from new development and redevelopment, which currently are not regulated. The agency has not proposed specific regulatory changes, but it is expected to issue a proposed rule late in 2011, to be finalized in 2012. The rule is expected to focus on stormwater discharges from developed, or

[52] U.S. Environmental Protection Agency, "Water Quality Standards for the State of Florida's Lakes and Flowing Waters; Final Rule," 75 *Federal Register* 75762-75807, December 5, 2010.

[53] Notice of the TMDL appeared in the *Federal Register* January 5, 2011. U.S. Environmental Protection Agency, "Clean Water Act Section 303(d): Notice for the Establishment of the Total Maximum Daily Load (TMDL) for the Chesapeake Bay," 76 *Federal Register* 549-550, January 5, 2011.

post-construction sites such as subdivisions, roadways, industrial facilities and commercial buildings, or shopping centers. In early 2010, EPA held a series of listening sessions across the country as part of a process seeking public comments on potential considerations for regulatory changes. For additional information, contact Claudia Copeland (7-7227, ccopeland@crs.loc.gov).

33. **Revised Cooling Water Intake Rule**. EPA is expected to propose a CWA rule to protect fish from entrainment by cooling water intake structures at existing powerplants and certain other industrial facilities. The proposed rule will revise EPA regulations issued in 2004 that were challenged in federal court by electric utility companies and others and were remanded to EPA by court order in 2007 and rules issued in 2006 that also apply to new offshore oil and gas facilities and existing manufacturing facilities, which EPA asked a court to remand to the agency for modification.[54] The proposal will also respond to a 2009 U.S. Supreme Court ruling which said that, in developing the revised cooling water intake structure rule, EPA can consider the costs and benefits of protecting fish and other aquatic organisms.[55] The rule, when proposed, will combine cooling water intake rules that apply to approximately 1,200 existing electric generating and manufacturing plants. On December 3, 2010, a federal court issued an order endorsing terms of a settlement agreement between EPA and environmental groups, which establishes a March 14, 2011, deadline for the agency to propose a revised cooling water intake rule and a July 27, 2012, deadline for promulgating a final rule. On March 15 EPA said that it is delaying its planned released of the proposed rule until March 28 and that the parties to the litigation have agreed to the extension. For additional information, contact Claudia Copeland (7-7227, ccopeland@crs.loc.gov).

34. **Revised Steam Electric Effluent Guidelines**. Under authority of CWA Section 304, EPA establishes national technology-based regulations, called effluent limitation guidelines (ELGs), to reduce pollutant discharges from industries directly to waters of the United States and indirectly to municipal wastewater treatment plants. These requirements are incorporated into discharge permits issued by EPA and states. The current steam electric power plant rules[56] apply to about 1,200 nuclear- and fossil-fueled steam electric power plants nationwide, 500 of which are coal-fired. In a 2009 study, EPA found that these regulations, which were promulgated in 1982, do not adequately address the pollutants being discharged and have not kept pace with changes that have occurred in the electric power industry over the last three decades. Pollutants of concern include metals (e.g., mercury, arsenic, and selenium), nutrients, and total dissolved solids. The rulemaking will address discharges from coal ash storage ponds and flue gas desulfurization (FGD) air pollution controls, as well as other power plant waste streams.[57]

Pursuant to a November 8, 2010 consent decree that it entered into with environmental litigants, EPA agreed to propose the revised power plant ELG by July 23, 2012, and to finalize the rule by January 31, 2014. For additional information, contact Claudia Copeland (7-7227, ccopeland@crs.loc.gov).

35. **Oil Spill Prevention, Control, and Countermeasure Requirements.** To prevent the discharge of oil from onshore and offshore facilities, EPA issued CWA regulations for spill

[54] 40 CFR §125.90 and 40 CFR §125.130.

[55] Entergy Corp. v. Riverkeeper Inc., 129 S. Ct. 1498 (2009).

[56] 40 CFR § 423.10.

[57] Separately, EPA also is considering regulation of coal ash disposal sites under Resource Conservation and Recovery Act, as discussed in this report under "Coal Combustion Waste."

prevention control and countermeasure (SPCC) plans in 1973.[58] SPCC plans apply to owners or operators of certain non-transportation-related facilities. In general, SPCC plans focus on oil spill prevention, requiring, for example, secondary containment (e.g., dikes or berms) for oil-storage equipment.

Following the passage of the Oil Pollution Act of 1990, the agency proposed substantial changes and clarifications that were not made final until July 2002.[59] However, EPA has both extended the 2002 rule's compliance date (on multiple occasions) and made further amendments to the 2002 rule. In a November 2009 rule,[60] EPA (among other actions) eliminated specific exclusions/exemptions made by a December 2008 rulemaking.[61] Under a rule promulgated on October 14, 2010,[62] the current deadline for complying with SPCC requirements for most facilities is November 10, 2011.

Pursuant to the CWA definition of oil, the SPCC requirements apply to petroleum-based and non-petroleum-based oil.[63] In a 1975 *Federal Register* notice, EPA clarified that its 1973 SPCC regulations apply to oils from animal and vegetable sources.[64] EPA has subsequently stated that "milk typically contains a percentage of animal fat, which is a non-petroleum oil" and is thus subject to SPCC provisions.[65] However, in 2009, EPA proposed a conditional exemption from SPCC requirements for milk storage units.[66] This exemption has not been finalized, but in its October 14, 2010 rule, EPA provided a specific extension for facilities subject to milk storage SPCC provisions, delaying compliance for one year from the effective date of the relevant final rule. For additional information, contact Jonathan Ramseur (7-7919, jramseur@crs.loc.gov).

36. **Mountaintop Mining in Appalachia.** EPA and other federal agencies (the Office of Surface Mining and Reclamation, in the Department of the Interior; and the U.S. Army Corps of Engineers) are developing a series of actions and regulatory proposals to reduce the harmful environmental and health impacts of surface coal mining, including mountaintop removal mining, in Appalachia. The actions, announced in a June 2009 interagency Memorandum of Understanding, are intended to tighten regulation and strengthen environmental reviews of permit requirements under the CWA and the Surface Mining Control and Reclamation Act (SMCRA). EPA is a key participant in several of the actions. EPA and the Corps are conducting detailed evaluations of 79 pending CWA permit applications for surface mining activities in order to limit environmental impacts of the proposed activities. In June 2010, the Army Corps suspended the use of a particular CWA general permit for surface coal mining activities in Appalachia and proposed a rule to prohibit its use entirely; a finalized rule, expected in 2012, would apply more

[58] 38 *Federal Register* 34164, December 11, 1973.

[59] 67 *Federal Register* 4704, July 17, 2002.

[60] U.S. Environmental Protection Agency, "Oil Pollution Prevention; Spill Prevention, Control, and Countermeasure (SPCC) Rule—Amendments," 74 *Federal Register* 58784, November 13, 2009.

[61] 73 *Federal Register* 74236, December 5, 2008.

[62] U.S. Environmental Protection Agency, "Oil Pollution Prevention; Spill Prevention, Control, and Countermeasure Rule Compliance Date Amendment ," 75 *Federal Register* 63093, October 14, 2010.

[63] See CWA Section 311(a) (33 U.S.C. 1321(a)).

[64] 40 *Federal Register* 28849, July 9, 1975.

[65] 74 *Federal Register* 2461, January 15, 2009.

[66] U.S. Environmental Protection Agency, "Oil Pollution Prevention: Spill Prevention, Control, and Countermeasure Rule Requirements—Amendments," 74 *Federal Register* 2461, January 15, 2009.

stringent CWA rules to these coal mining operations.[67] In addition, in November 2009, the Department of the Interior's Office of Surface Mining (OSM) issued an Advance Notice of Proposed Rulemaking (ANPR) describing options to revise a SMCRA rule, called the stream buffer zone rule, which was promulgated in December 2008.[68] The Obama Administration identified the 2008 rule, which exempts so-called valley fills and other mining waste disposal activities from requirements to protect a 100-foot buffer zone around streams, for revision as part of the series of actions concerning surface coal mining in Appalachia. In June 2010, OSM said it will prepare an Environmental Impact Statement on the buffer zone rule; it will propose a revised rule later, but there is no known timetable.[69] For additional information, contact Claudia Copeland (7-7227, ccopeland@crs.loc.gov).

Safe Drinking Water Act

37. **Geologic Sequestration of Carbon Dioxide.** Completing an initiative of the Bush Administration, EPA promulgated regulations on December 10, 2010, to create a nationally consistent framework for managing the underground injection of carbon dioxide (CO_2) for geologic sequestration purposes, to mitigate emissions of this greenhouse gas.[70] EPA proposed the rule in July 2008. The rule creates a new class of underground injection wells (Class VI) for geologic sequestration, and establishes national requirements that would apply to these wells to ensure that CO_2 injection does not endanger underground sources of drinking water. The rule builds on the existing Underground Injection Control (UIC) program under the Safe Drinking Water Act, including requirements for well owners and operators to ensure that wells are appropriately located, constructed, tested, monitored, and ultimately closed. Well owners or operators must maintain financial assurance so that wells can be plugged and abandoned properly. EPA's stated regulatory goal is to have effective permitting regulations in place to ensure that geologic sequestration can occur in a safe and effective manner in order to enable commercial-scale carbon capture and storage (CCS) projects to move forward. For additional information, contact Mary Tiemann (7-5937, mtiemann@crs.loc.gov).

Toxic Substances Control Act (TSCA)

38.-40. **Lead: Renovation, Repair, and Painting Program Rules.** EPA has revised a 2008 final rule implementing Section 402(c)(3) of the Toxic Substances Control Act (TSCA; enacted as the Residential Lead-Based Paint Hazard Reduction Act of 1992.) The rule aims to reduce human health hazards associated with exposure to lead-based paint. It established requirements for training and certifying workers and firms that remodel, repair, or paint homes or child-occupied public or commercial buildings likely to contain lead-based paint (generally built before 1978).

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[67] Department of the Army, Corps of Engineers, "Suspension of Nationwide Permit 21," 75 *Federal Register* 34711-34714, June 18, 2010.

[68] U.S. Department of the Interior, Office of Surface Mining Reclamation and Enforcement, "Stream Buffer Zone and Related Rules; Advance notice of proposed rulemaking; notice of intent to prepare a supplemental environmental impact statement (SEIS)," 74 *Federal Register* 62664-62668, November 30, 2009.

[69] U.S. Department of the Interior, Office of Surface Mining Reclamation and Enforcement, "Stream Protection Rule; Environmental Impact Statement," 75 *Federal Register* 34666-34669, June 18, 2010.

[70] U.S. Environmental Protection Agency, "Federal Requirements Under the Underground Injection Control Program: Carbon Dioxide (CO) Geologic Sequestration Wells; Final Rule," 75 *Federal Register* 77230, December 10, 2010.

Shortly after promulgation of the 2008 version of the rule, several petitions were filed challenging it. The U.S. Court of Appeals for the District of Columbia Circuit consolidated the petitions and, in August 2009, EPA signed a settlement agreement with the petitioners. The agreement set legal deadlines for a number of EPA rulemaking actions. One rule proposed May 6, 2010, addresses public and commercial buildings that are not child-occupied.[71] A second rule, also proposed in May 2010, addresses the testing requirements after renovations are complete.[72] A third rule promulgated in May 2010 eliminates an opt-out provision that would have exempted a renovation firm from training and work practice requirements if certification were obtained from the property owner that no child under age 6 or pregnant woman resides in a facility and no children spend significant amounts of time there.[73] That rule also revises recordkeeping and disclosure provisions. EPA has estimated that this rule would add $500 million to the cost of the 2008 renovation, repair, and painting program in the first year and $300 million per year starting with the second year. In May 2010, Congress adopted an amendment to H.R. 4899, a bill providing supplemental appropriations which later became P.L. 111-212. The amendment prohibited the use of appropriated funds to levy fines or to hold any person liable for work performed under the rule. In June 2010, EPA published a memorandum informing enforcement division directors in the regional offices that the Agency would not enforce certain requirements for certification of firms or for individual training until after October 1, 2010. However, individual renovators must be enrolled in required training classes before that date and all must complete required training prior to December 31, 2010, according to the memorandum. For additional information, contact Linda-Jo Schierow (7-7279, lschierow@crs.loc.gov).

RCRA/Superfund

41. **Coal Combustion Waste.** In 2008, coal-fired power plants accounted for almost half of U.S. electric power, resulting in approximately 136 millions tons of coal combustion waste (CCW). On December 22, 2008, national attention was turned to risks associated with managing CCW when a breach in a surface impoundment pond at the Tennessee Valley Authority's Kingston, TN, plant released 1.1 billion gallons of coal ash slurry, covering hundreds of acres and damaging or destroying homes and property. In addition to the risk of a sudden, catastrophic release such as that at Kingston, EPA has determined that CCW disposal in unlined landfills and surface impoundments presents substantial risks to human health and the environment from releases of toxic constituents (particularly arsenic and selenium) into surface and groundwater. To establish national standards intended to address risks associated with potential CCW mismanagement, on June 21, 2010, EPA proposed two regulatory options to manage the waste;[74] the agency has not yet promulgated a final rule and has not projected a date for doing so. The first option would draw on EPA's existing authority to identify a waste as hazardous and regulate it under the waste management standards established under Subtitle C of the Resource Conservation and Recovery

[71] U.S. Environmental Protection Agency, "Lead; Renovation, Repair, and Painting Program for Public and Commercial Buildings; Proposed Rule," 75 *Federal Register* 24848-24862, May 6, 2010.

[72] U.S. Environmental Protection Agency, "Clearance and Clearance Testing Requirements for the Renovation, Repair, and Painting Program: Lead; Proposed Rule," 75 Federal Register 25038-25073, May 6, 2010.

[73] U.S. Environmental Protection Agency, "Amendment to the Opt-out and Recordkeeping Provisions in the Renovation, Repair, and Painting Program: Lead; Final Rule," 75 Federal Register 24802-24819, May 6, 2010.

[74] U.S. Environmental Protection Agency, "Hazardous and Solid Waste Management System; Identification and Listing of Special Wastes; Disposal of Coal Combustion Residuals From Electric Utilities," 75 Federal Register 35127-35264, June 21, 2010.

Act (RCRA). The second option would establish regulations applicable to CCW disposal units under RCRA's Subtitle D solid waste management requirements. In its Regulatory Impact Analysis, EPA estimated the average annualized regulatory costs to be approximately $1.5 billion a year under the Subtitle C option or $587 million a year under the Subtitle D option, but there could be additional costs or benefits depending on how the rule affects the recycling of coal ash. For additional information, contact Linda Luther (7-6852, lluther@crs.loc.gov).

42. **Identification of Materials That Are Solid Wastes.** In conjunction with the proposed boiler and incinerator emission standards discussed above in items 18, 19, and 20, EPA proposed regulations intended to clarify when certain materials burned as fuel in a combustion unit would be considered a "solid waste."[75] The proposed definition of solid waste plays an important role in the regulations for boilers and incinerators because the 2007 D.C. Circuit decision vacating EPA's boiler standards concluded that the Clean Air Act "requires any unit that combusts 'any solid waste material at all'—regardless of whether the material is being burned for energy recovery—to be regulated as a 'solid waste incineration unit.'"[76] EPA states that this regulatory action would not directly invoke any costs or benefits. However, the agency acknowledges that the proposal would significantly narrow the current universe of non-hazardous secondary materials that could be burned in boilers—simultaneously expanding the number of combustion units subject to the more stringent emission standards applicable to incinerators (item 20 above).[77] Concerns have been expressed about the impact that the proposed rule would have on existing state and federal requirements applicable to the use of used tires and off-specification used oil that are burned as fuel. There is no court order setting a deadline for this rule, but given its role in determining whether units will be subject to boiler or incinerator standards, it needs to be finalized within roughly the same time period as those standards, early in 2011. For additional information, contact Linda Luther (7-6852, lluther@crs.loc.gov).

43. **Guidance for Cleanup of Dioxin in Surface Soils.** On January 7, 2010, EPA proposed interim guidance that would make the goals for cleanup of dioxins in soil more stringent.[78] Although the guidance would not have the force of regulation, it would establish new "preliminary remediation goals" that would serve as EPA's recommended baseline for making cleanup decisions at contaminated sites addressed under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA, or Superfund) and the Resource Conservation and Recovery Act (RCRA). For residential soil, the current goal of 1,000 parts per trillion (ppt) would be tightened to 72 ppt. For soil at commercial or industrial sites, the proposed guidance would tighten the goal from the current 5,000-20,000 ppt level to 950 ppt. For additional information, contact David Bearden (7-2390, dbearden@crs.loc.gov).

[75] Environmental Protection Agency, Proposed Rule, "Identification of Non-Hazardous Secondary Materials That Are Solid Waste," 75 *Federal Register* 31843, June 4, 2010.

[76] Cited in the proposed rule at 75 *Federal Register* 31848.

[77] See EPA's web page "Identification of Non-Hazardous Materials That Are Solid Waste: Proposed Rule" at http://www.epa.gov/epawaste/nonhaz/define/index.htm.

[78] U.S. Environmental Protection Agency, "Draft Recommended Interim Preliminary Remediation Goals for Dioxin in Soil at CERCLA and RCRA Sites," 75 *Federal Register* 984, January 7, 2010.

Table 1. Recent Rules Proposed, Promulgated, or Under Development, by EPA

Item No.	Statutory Authority	Rule	Status	Court or Legislative Requirement?	Affected Entities
1.	Clean Air Act	Greenhouse Gas (GHG) Reporting Rule	Promulgated October 30, 2009. Other categories of sources have subsequently been added, the latest on November 8, 2010.	Required by FY2008 EPA appropriation (P.L. 110-161).	About 10,000 facilities in 31 categories were affected by the original rule. Eleven categories with about 3,000 more facilities have subsequently been added.
2.	Clean Air Act	GHG Endangerment Finding	Promulgated December 15, 2009.	A determination was required by the Supreme Court decision in *Massachusetts v. EPA*, April 2, 2007.	Prerequisite to finalizing EPA's GHG emission standards for cars and light-duty trucks, promulgated April 1, 2010; these, in turn, trigger GHG permit requirements for stationary sources.
3.	Clean Air Act	Light Duty Motor Vehicle GHG Rule	Promulgated May 7, 2010.	A determination was required by the Supreme Court decision in *Massachusetts v. EPA*, April 2, 2007.	New cars, minivans, SUVs, and light trucks, beginning in model year 2012. EPA estimates the lifetime increased cost for 2012-2016 vehicles at $52 billion, with $240 billion in expected benefits.
4.	Clean Air Act	GHG Tailoring Rule	Promulgated June 3, 2010.	none	Limits to about 1,450 the number of facilities required to obtain GHG emission permits over the next three years.
5.	Clean Air Act	PSD and Title V Permit Requirements for GHG Emissions	Effective January 2, 2011.	Required once Light Duty Motor Vehicle Rule was promulgated.	Applies only to large stationary sources identified by the Tailoring Rule. EPA estimates increased costs for 2014-2018 vehicles at $7.7 billion, with $49 billion in projected benefits.

Item No.	Statutory Authority	Rule	Status	Court or Legislative Requirement?	Affected Entities
6.	Clean Air Act	Medium- and Heavy-Duty Vehicle GHG Rule	Proposed November 30, 2010.	Fuel economy standards were required by Section 102 of EISA (P.L. 110-140). GHG standards were required once EPA finalized the endangerment finding, and were harmonized with the fuel economy proposal.	New trucks beginning in model year 2014.
7.	Clean Air Act	NSPS to Control GHG Emissions from Petroleum Refineries	On December 23, 2010, EPA released the text of a settlement agreement with 11 states, two municipalities, and three environmental groups, under which it agreed to propose the NSPS by December 10, 2011, and take final action on the proposal by November 10, 2012.	EPA has been sued by numerous parties for its failure to issue NSPS for GHG emissions from power plants (*American Petroleum Institute v. EPA*). Section 111(b) of the Clean Air Act requires NSPS for a category of sources if it "causes, or contributes significantly to air pollution which may reasonably be anticipated to endanger public health or welfare."	Petroleum refineries, which EPA concludes are the second largest direct stationary source of GHGs in the United States.
8.	Clean Air Act	Expanded Renewable Fuel Standard (RFS2)	Promulgated March 26, 2010.	Decisions required by the Energy Independence and Security Act of 2007.	Petroleum refiners, biofuel producers.

Item No.	Statutory Authority	Rule	Status	Court or Legislative Requirement?	Affected Entities
9.	Clean Air Act	Ethanol Blend Wall Waiver	EPA granted a partial waiver for E15 use in 2007 and newer passenger cars and light trucks, November 4, 2010. On January 21, 2011, EPA announced that the waiver would be expanded to include MY2001-MY2006 vehicles.	The Energy Independence and Security Act of 2007 mandates increased use of renewable fuels. Unless EPA grants a Clean Air Act waiver to allow increased use of ethanol in gasoline, it will be difficult to meet this mandate.	Gasoline refiners and blenders, auto manufacturers, and manufacturers of engines for outdoor equipment of all types.
10.	Clean Air Act	National Ambient Air Quality Standard for Nitrogen Dioxide	Promulgated February 9, 2010.	EPA settled a law suit in 2007, agreeing to review the existing standard by January 2010.	Only Cook County, IL (Chicago) violates the new standard using current monitoring, but many areas have no monitors.
11.	Clean Air Act	National Ambient Air Quality Standard for Sulfur Dioxide (SO_2)	Promulgated June 22, 2010.	D.C. Circuit remanded the SO_2 standard to EPA in 1998; EPA acted under a consent decree.	Principal effects would be to require additional controls on coal-fired electric power plants; EPA estimates costs at $1.8 billion to $6.8 billion annually, with benefits 5-6 times that amount.
12.	Clean Air Act	National Ambient Air Quality Standard for Ozone	Proposed January 19, 2010; expected to be promulgated by July 29, 2011.	In response to petitions for review, EPA agreed to reconsider the ozone NAAQS promulgated in March 2008.	Recent ozone levels in the vast majority of the 675 counties with monitors would violate the proposed standard; implementation could lead to widespread new emission controls at a projected cost of $19 billion to $90 billion annually in 2020, with comparable levels of benefits, according to EPA.

Item No.	Statutory Authority	Rule	Status	Court or Legislative Requirement?	Affected Entities
13.	Clean Air Act	National Ambient Air Quality Standard for Carbon Monoxide	EPA proposed to retain the current standard January 31, 2011.	Under court order, EPA is to complete this review by August 12, 2011.	Emissions of CO come largely from motor vehicles, and have decreased substantially in recent years.
14.	Clean Air Act	National Ambient Air Quality Standard for Particulate Matter (PM)	To be proposed by June 2011.	D.C. Circuit remanded the 2006 fine particulate ($PM_{2.5}$) standards to EPA in February 2009.	PM standards affect a wide range of sources because they address all kinds of particles and aerosols in the atmosphere.
15.	Clean Air Act	Clean Air Transport Rule	Proposed August 2, 2010. Expected to be promulgated and a second transport rule to be proposed in summer 2011.	D.C. Circuit remanded the rule to EPA in 2008.	Affects electric power plants in 31 Eastern states; sets up cap-and-trade programs for SO_2 and NOx, at a projected annual cost of $2.2 billion, with benefits of $120 billion to $290 billion annually, according to EPA.
16.	Clean Air Act	MACT for Electric Generating Units	EPA proposed the standards March 16, 2011.	Clean Air Mercury Rule was vacated and remanded to EPA in February 2008. EPA, under a consent decree, has agreed to promulgate standards by November 16, 2011.	Coal-fired electric generating units, which generate about half the nation's electricity.

Item No.	Statutory Authority	Rule	Status	Court or Legislative Requirement?	Affected Entities
17.	Clean Air Act	NSPS to Control GHG Emissions from Electric Generating Units	EPA is coordinating this review with the development of MACT standards described in #16 above. On December 23, 2010, EPA released the text of a settlement agreement with 11 states, 2 municipalities, and 3 environmental groups, under which it agreed to propose the NSPS by July 26, 2011, and take final action on the proposal by May 26, 2012.	EPA has been sued by numerous parties for its failure to issue NSPS for GHG emissions from power plants (*State of New York v. EPA*). Section 111(b) of the Clean Air Act requires NSPS for a category of sources if it "causes, or contributes significantly to air pollution which may reasonably be anticipated to endanger public health or welfare." EPA has already concluded that GHGs are such air pollution. Electric generating units account for one-third of all U.S. GHG emissions.	Primarily coal-fired electric generating units, which generate about half the nation's electricity.
18.	Clean Air Act	MACT to Control Air Toxics from Boilers	Promulgated under court order February 21, 2011. The agency began a reconsideration process the same day.	D.C. Circuit vacated the rule in 2007.	Would affect a broad array of industrial, commercial, and institutional facilities.
19.	Clean Air Act	Area Source Standards for Boilers	Promulgated under court order February 21, 2011. The agency began a reconsideration process the same day.	D.C. Circuit vacated the boiler and related incinerator rules in 2007.	Boilers at thousands of smaller commercial, industrial, and institutional facilities.
20.	Clean Air Act	CISWI Incinerator Standards	Promulgated under court order February 21, 2011. The agency began a reconsideration process the same day.	D.C. Circuit vacated the rule in 2007.	88 boilers that qualify as incinerators because they burn solid waste.

Item No.	Statutory Authority	Rule	Status	Court or Legislative Requirement?	Affected Entities
21.	Clean Air Act	Sewage Sludge Incinerator Standards	Proposed October 14, 2010. Under court order, was to be promulgated by February 21, 2011.	Court deadline as the result of a March 31, 2006 decision of the D.C. Circuit, *Sierra Club v. Johnson*.	218 units at wastewater treatment facilities.
22.	Clean Air Act	Portland Cement Manufacturing MACT and NSPS	Promulgated September 9, 2010.	Earlier standards, promulgated in 1999, were remanded to the agency by the D.C. Circuit Court of Appeals. EPA promulgated a replacement in 2006, but subsequently agreed to reconsider the replacement rules.	Portland cement manufacturing industry. About 158 cement kilns operating at nearly 100 locations are affected by the rules.
23.	Clean Air Act	RICE Rule for Stationary Diesel Engines	Promulgated March 3, 2010.	The standards respond in part to a December 2008 DC. Circuit Court of Appeals ruling that EPA's air toxics standards must address emissions during all phases of operation including periods of startup, shutdown, and malfunction. The schedule for completing this rule was established by a consent decree.	900,000 engines used as backup generators or to power compressors and pumps by industrial, agricultural, or oil and gas industry sources.
24.	Clean Air Act	RICE Rule for Stationary Spark-Ignition Engines	Promulgated August 20, 2010.	Same as Item 21.	330,000 engines used as backup generators or to power compressors and pumps by industrial, agricultural, or oil and gas industry sources.

Item No.	Statutory Authority	Rule	Status	Court or Legislative Requirement?	Affected Entities
25.	Clean Air Act	Emission Standards for New Marine (C3) Engines	Promulgated April 30, 2010.	None, but EPA had committed to promulgate the standards when issuing earlier standards in 2003.	The standards, which affect new marine engines for ocean-going ships beginning in 2011, were generally supported by the shipping industry,
26.	Clean Air Act	Emission Control Areas for Ocean-Going Ships	International Maritime Organization gave final approval to EPA's proposal in March 2010.	none	The measure, which is supported by the maritime industry, will require use of low sulfur fuels within 200 nautical miles of most of the U.S. coast.
27.	Clean Water Act	Construction Site Effluent Limitation Guidelines	Promulgated December 1, 2009.	Federal court ordered EPA to issue a final rule by December 1, 2009.	Affects about 82,000 firms involved in residential, commercial, highways, street, and bridge construction.
28.	Clean Water Act	Airport Deicing Effluent Limitation Guidelines	Proposed August 28, 2009. A final rule is expected in March 2011.	Ongoing EPA activity to regulate wastewater discharges from categories of industry.	Proposed rule applies to 218 airports.
29.	Clean Water Act	Pesticide Application General Permit	EPA proposed a draft permit June 4, 2010. Final permit was expected December 2010; EPA has asked for a delay until October 31, 2011.	2009 federal court ruling invalidated a 2006 EPA rule.	Estimated universe of affected activities is approximately 5.6 million applications annually, performed by 365,000 applicators.
30.	Clean Water Act	Florida Nutrient Water Quality Standards	EPA promulgated numeric nutrient standards for certain Florida waters on December 5, 2010.	2009 federal consent decree establishing a schedule for EPA to issue numeric nutrient standards.	Would likely affect a broad array of industrial and municipal dischargers and possibly sources of nonpoint pollution (e.g., agricultural lands).
31.	Clean Water Act	Chesapeake Bay TMDL	EPA finalized a TMDL on December 29, 2010.	Consent decrees required EPA to develop a TMDL by May 1, 2011.	Potentially could require additional pollution control by many point and nonpoint sources throughout the Chesapeake Bay watershed.

Item No.	Statutory Authority	Rule	Status	Court or Legislative Requirement?	Affected Entities
32.	Clean Water Act	Revised Stormwater Rule	EPA expects to propose a rule in late 2011.	none	Unknown at this time.
33.	Clean Water Act	Revised Cooling Water Intake Rule	EPA is developing a proposed rule, which is expected by March 28, 2011.	EPA rules issued in 2004 were remanded by order of a federal court.	Proposal will apply to existing power plants and certain other manufacturing facilities.
34.	Clean Water Act	Revised Steam Electric Effluent Guidelines	EPA is developing a proposed rule.	November 2010 consent decree requires EPA to propose revised rule by July 2012 and promulgate final rule by January 2014.	Proposal will apply to existing and new steam electric power plants.
35.	Clean Water Act	SPCC Revisions, including Exemption for Milk Storage	Latest revisions promulgated October 14, 2010.	none	Applicable facilities that store oil, which includes milk.
36.	Clean Water Act and Surface Mining Control and Reclamation Act	Mountaintop Mining in Appalachia	Various short-term and long-term actions are underway by EPA and other federal agencies to revise regulations.	none	Surface coal mining operations in the Appalachian region.
37.	Safe Drinking Water Act	Geologic Sequestration of Carbon Dioxide	Final rule was promulgated December 10, 2010.	none	Sources of carbon dioxide, most likely coal-fired electric power plants, if they choose sequestration.
38.-40.	Toxic Substances Control Act	Lead Renovation, Repair, and Painting	Training, work practice, recordkeeping, and disclosure requirements proposed or promulgated in May 2010; other rules to be proposed in 2011.	August 2009 settlement agreement sets numerous deadlines.	Workers and firms that remodel, repair, or paint homes and some commercial buildings.
41.	Resource Conservation and Recovery Act (RCRA)	Coal Combustion Waste	Proposed June 21, 2010.	none	Coal-fired electric power plants.

Item No.	Statutory Authority	Rule	Status	Court or Legislative Requirement?	Affected Entities
42.	Resource Conservation and Recovery Act (RCRA)	Identification of Materials That Are Solid Wastes	Proposed June 4, 2010.	D.C. Circuit vacated related rules addressing boilers and incinerators in 2007.	Boilers/incinerators that burn discarded materials.
43.	Superfund/RCRA	Guidance for Cleanup of Dioxin in Surface Soils	Interim guidance proposed January 7, 2010.	none	Responsible parties at Superfund and other contaminated sites, including the Department of Defense.

Source: Compiled by CRS.

Author Contact Information

James E. McCarthy
Specialist in Environmental Policy
jmccarthy@crs.loc.gov, 7-7225

Claudia Copeland
Specialist in Resources and Environmental Policy
ccopeland@crs.loc.gov, 7-7227

Key Policy and Legal Staff

Other CRS analysts, listed below, contributed to this report.

Area of Expertise	Name	Phone	E-mail
Superfund	David Bearden	7-2390	dbearden@crs.loc.gov
Clean Water Act	Claudia Copeland	7-7227	ccopeland@crs.loc.gov
Solid Waste	Linda Luther	7-6852	lluther@crs.loc.gov
Clean Air Act	Jim McCarthy	7-7225	jmccarthy@crs.loc.gov
Environmental law	Rob Meltz	7-7891	rmeltz@crs.loc.gov
Clean Air Act, electric generating units	Larry Parker	7-7238	lparker@crs.loc.gov
Oil Spill Prevention	Jonathan Ramseur	7-7919	jramseur@crs.loc.gov
Toxic Substances Control Act	Linda-Jo Schierow	7-7279	lschierow@crs.loc.gov
Safe Drinking Water Act	Mary Tiemann	7-5937	mtiemann@crs.loc.gov
Clean Air Act, mobile sources, CAFE	Brent Yacobucci	7-9662	byacobucci@crs.loc.gov