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# **Federal Agency Actions Following the Supreme Court's Climate Change Decision in *Massachusetts v. EPA*: A Chronology**

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## Summary

On April 2, 2007, the Supreme Court rendered one of its most important environmental decisions. In *Massachusetts v. EPA*, the Court held 5-4 that greenhouse gases (GHGs), widely viewed as contributing to climate change, constitute “air pollutants” as that phrase is used in the Clean Air Act (CAA). As a result, said the Court, the U.S. Environmental Protection Agency (EPA) had improperly denied a petition seeking CAA regulation of GHG emissions from new motor vehicles by saying the agency lacked authority over such emissions.

This report offers a chronology of major federal agency actions, mainly by EPA, that involve GHGs or climate change and that occurred after *Massachusetts v. EPA*. Most of the listed actions trace directly or indirectly back to the decision. Examples include EPA’s “endangerment finding” for GHG emissions from new motor vehicles; the agency’s standards for GHG emissions from new motor vehicles; its interpretation of “pollutants subject to regulation,” the CAA trigger for requiring best available control technology (BACT) for such pollutants in “prevention of significant deterioration” areas; its guidance for determining BACT for GHG emissions; the “tailoring rule” (limiting the stationary sources that initially will have to install BACT and obtain CAA Title V permits based on their GHG emissions); and settlements of litigation seeking to compel new source performance standards for GHG emissions from electric power plants and petroleum refineries. A few agency actions were included solely because of their relevance to climate change and their post-*Massachusetts* occurrence—for example, EPA’s responses to California’s request for a waiver of CAA preemption allowing that state to set its own limits for GHG emissions from new motor vehicles, and EPA’s monitoring rule for GHG emissions.

More analytical treatment of the government actions in this report may be found in CRS Report R40984, *Legal Consequences of EPA’s Endangerment Finding for New Motor Vehicle Greenhouse Gas Emissions*, by Robert Meltz; CRS Report RS22665, *The Supreme Court’s Climate Change Decision: Massachusetts v. EPA*, by Robert Meltz; CRS Report R40585, *Climate Change: Potential Regulation of Stationary Greenhouse Gas Sources Under the Clean Air Act*, by Larry Parker and James E. McCarthy; CRS Report R43127, *EPA Standards for Greenhouse Gas Emissions from Power Plants: Many Questions, Some Answers*, by James E. McCarthy; CRS Report R40506, *Cars, Trucks, and Climate: EPA Regulation of Greenhouse Gases from Mobile Sources*, by James E. McCarthy and Brent D. Yacobucci; CRS Report R40166, *Automobile and Light Truck Fuel Economy: The CAFE Standards*, by Brent D. Yacobucci, (available upon request); CRS Report R43120, *President Obama’s Climate Action Plan*, coordinated by Jane A. Leggett; and CRS Report R41212, *EPA Regulation of Greenhouse Gases: Congressional Responses and Options*, by James E. McCarthy.

## Contents

Introduction.....	1
2008 .....	2
2009 .....	3
2010 .....	4
2011 .....	8
2012 .....	8
2013 .....	9
2014 .....	10

## Appendixes

Appendix. Table of Acronyms .....	11
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## Contacts

Author Contact Information.....	11
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## Introduction

On April 2, 2007, the Supreme Court rendered one of its most important environmental decisions ever. The case, *Massachusetts v. EPA*,<sup>1</sup> arose when the U.S. Environmental Protection Agency (EPA) denied a petition asking it to take two actions—(a) find under the Clean Air Act (CAA) that greenhouse gases (GHGs) emitted from new motor vehicles “cause, or contribute to, air pollution which may reasonably be anticipated to endanger public health or welfare,”<sup>2</sup> through their climate change effects, then (b) issue standards for those GHG emissions. EPA’s petition denial was based in part on its claim that it lacked authority to regulate GHGs. To the contrary, said the Supreme Court by 5-4, GHGs constitute “air pollutants” under the CAA, hence EPA does indeed have the authority to regulate GHG emissions. The Court gave EPA three options: (a) determine that GHG emissions from new motor vehicles “cause, or contribute to, air pollution which may reasonably be anticipated to endanger public health or welfare”; (b) determine that such GHG emissions do *not* do so; or (c) explain why the agency is unable to make a determination under either (a) or (b).

EPA chose option (a)—that is, to make a positive “endangerment finding” for GHG emissions from new motor vehicles. That finding was made in December 2009, and under explicit CAA provisions initiated a domino effect. The positive endangerment finding required EPA to promulgate standards to address the endangerment.<sup>3</sup> That action the agency also has taken, in May 2010. These standards, in turn, triggered the CAA requirement that major new stationary sources and major modifications of existing stationary sources, when proposed for Prevention of Significant Deterioration (PSD) areas, must install “best available control technology” to control GHG emissions.<sup>4</sup> And that requirement triggered CAA Title V permitting requirements that for many air pollution sources would not otherwise be triggered.<sup>5</sup>

This report is a chronology of the major climate-change-related actions taken by federal agencies, principally EPA, in the wake of *Massachusetts v. EPA*. Most of the listed actions trace directly or indirectly back to the decision; a few were included solely because of their relevance to climate change and their occurrence post-*Massachusetts*. More analytical treatment of the agency actions in this report may be found in other CRS reports.<sup>6</sup>

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<sup>1</sup> 549 U.S. 497 (2007).

<sup>2</sup> CAA § 202(a); 42 U.S.C. § 7521(a).

<sup>3</sup> *Id.*

<sup>4</sup> CAA § 165(a)(4); 42 U.S.C. § 7475(a)(4).

<sup>5</sup> CAA §§ 501-507; 42 U.S.C. §§ 7661-7661f.

<sup>6</sup> See CRS Report RL32764, *Climate Change Litigation: A Survey*, by Robert Meltz; CRS Report R40984, *Legal Consequences of EPA’s Endangerment Finding for New Motor Vehicle Greenhouse Gas Emissions*, by Robert Meltz; CRS Report RS22665, *The Supreme Court’s Climate Change Decision: Massachusetts v. EPA*, by Robert Meltz; CRS Report R40585, *Climate Change: Potential Regulation of Stationary Greenhouse Gas Sources Under the Clean Air Act*, by Larry Parker and James E. McCarthy; CRS Report R43127, *EPA Standards for Greenhouse Gas Emissions from Power Plants: Many Questions, Some Answers*, by James E. McCarthy; CRS Report R40506, *Cars, Trucks, and Climate: EPA Regulation of Greenhouse Gases from Mobile Sources*, by James E. McCarthy and Brent D. Yacobucci; and CRS Report R40166, *Automobile and Light Truck Fuel Economy: The CAFE Standards*, by Brent D. Yacobucci, available upon request.

- *A table of acronyms is provided in the Appendix.*
- *Dates used are those of Federal Register publication wherever a Federal Register citation is given. In most cases, however, the agency action was signed and publicly announced weeks (or more) earlier.*
- *Once an agency promulgates a final rule, the report's entry for the proposed rule has been deleted.*

## 2008

**March 6: EPA denies California's request for waiver of CAA preemption.** 73 Fed. Reg. 12,156. By way of background, the CAA preempts state controls on new motor vehicle emissions,<sup>7</sup> but offers California, and California alone, the opportunity to request a waiver of CAA preemption.<sup>8</sup> EPA must grant the preemption waiver if certain conditions are met.<sup>9</sup> The importance of this "California waiver" is magnified by the fact that once EPA grants the waiver, states that adopt motor vehicle emission standards identical to California's also partake of the preemption waiver for the same vehicles.<sup>10</sup> In the present case, California sought a waiver of CAA preemption for its GHG emissions limits for 2009 and later model year motor vehicles. EPA denied the waiver on finding that the state did not need those emission limits to meet "compelling and extraordinary conditions," as required by the CAA.<sup>11</sup> (See "July 8, 2009" below for EPA's reversal of this denial.)

**July 30: EPA issues advance notice of proposed rulemaking.** 73 Fed. Reg. 44354. This document, titled "Regulating Greenhouse Gas Emissions Under the Clean Air Act," sets out EPA's view of the legal implications were EPA to make a positive endangerment finding for GHGs from new motor vehicles—as discussed in the introduction of this report, "option (a)" offered by the Supreme Court. It is purely an informational document, prepared after the George W. Bush Administration decided in late 2007 not to issue an endangerment finding for new motor vehicle GHG emissions, but rather to leave that decision to the next Administration.

**December 31: EPA Administrator publishes interpretive memorandum ("Johnson memorandum").** 73 Fed. Reg. 80300. EPA Administrator Stephen Johnson issued this memorandum, titled "EPA's Interpretation of Regulations that Determine Pollutants Covered by Federal Prevention of Significant Deterioration (PSD) Permit Program." The memorandum narrowly interprets the CAA phrase "pollutant subject to regulation under this act"<sup>12</sup> to include only pollutants regulated by *actual, not potential future*, emission limits under the CAA or its regulations.

Much hangs on this distinction between actual, and potential future, emission limits. In PSD areas of the country, the CAA requires only pollutants "subject to regulation under [the CAA]" to be controlled by potentially expensive BACT—when emitted by new major emitting facilities or

<sup>7</sup> CAA § 209(a); 42 U.S.C. § 7543(a).

<sup>8</sup> CAA § 209(b); 42 U.S.C. § 7543(b).

<sup>9</sup> *Id.*

<sup>10</sup> CAA § 177; 42 U.S.C. § 7507.

<sup>11</sup> CAA § 209(b)(1)(B); 42 U.S.C. § 7543 (b)(1)(B).

<sup>12</sup> CAA § 165(a)(4); 42 U.S.C. § 7475(a)(4).

major modifications of existing facilities. Since there were no “actual” GHG regulations under the CAA when the Johnson memorandum was issued, this meant that for the near term at least, new major emitting facilities and major modifications of existing facilities proposed for PSD areas did not have to install BACT for GHG emissions.

## 2009

**February 17: EPA grants petition for reconsideration of Johnson memorandum.** (See “December 31, 2008” above.) EPA did not grant a stay of the memorandum, however, announcing that it will remain in effect until the agency makes a final decision at the end of the reconsideration period.

**July 8: EPA grants California’s request for waiver of CAA preemption.** 74 Fed. Reg. 32744. This rule reversed EPA’s prior denial of California’s request for a preemption waiver (see “March 6, 2008” above). As noted, its effect is to allow California’s GHG emissions limits for 2009 and later model year motor vehicles to go into effect, and to allow the identical emission standards for the same vehicles promulgated by other states to do likewise. Such “other states” now number 13, plus the District of Columbia.

**October 7: EPA implements grant of reconsideration of the Johnson memorandum on February 17, 2009.** 71 Fed. Reg. 51535. This document discusses various possible interpretations of “subject to regulation” (see “December 31, 2008”) and requests public comment. The interpretations discussed include EPA’s “current and preferred interpretation, which would make PSD applicable to a pollutant on the basis of an EPA regulation requiring actual control of emissions of a pollutant.” *Id.* at 51535.

**October 30: EPA finalizes mandatory GHG monitoring rule.** 74 Fed. Reg. 56260. The FY2008 Consolidated Appropriations Act<sup>13</sup> requires that EPA develop a rule “to require mandatory reporting of GHG emissions above appropriate thresholds in all sectors of the economy”—using EPA’s existing CAA authority. The rule took effect January 1, 2010, with the first monitoring reports due in 2011. To allow additional time for setting up the reporting system, EPA recently extended the reporting deadline for 2010 emissions from March 31, 2011, to September 30, 2011. 76 Fed. Reg. 14812 (March 18, 2011). Corrections and clarifications of the October 30, 2009, monitoring rule appear at 75 Fed. Reg. 66434 (October 28, 2010). With the foregoing exceptions, this CRS report does not list EPA’s many amendments and expansions of this monitoring rule. To stay abreast, the reader is referred to <http://www.epa.gov/climatechange/emissions/ghgrulemaking.html>.

**December 15: EPA finalizes endangerment finding for GHG emissions from new motor vehicles.**<sup>14</sup> 74 Fed. Reg. 66496. This action under CAA Section 202(a)<sup>15</sup> was option (a) offered to EPA by the Supreme Court decision, as described on page 1. By this endangerment finding, EPA

<sup>13</sup> P.L. 110-161, Div. F, tit. II; 121 Stat. 1844, 2128.

<sup>14</sup> A challenge to the validity of this endangerment finding, and three other EPA actions described in this report, was unanimously rejected in *Coalition for Responsible Regulation v. EPA*, 684 F.3d 102 (D.C. 2012). Though the Supreme Court has agreed to review this decision, review will be limited to a narrow question unrelated to the validity of EPA’s endangerment finding.

<sup>15</sup> 42 U.S.C. § 7521(a).

actually makes two findings under section 202(a): first, that six GHGs currently in the atmosphere are reasonably likely to endanger both public health and welfare, and second, that the four GHGs emitted by new motor vehicle emissions in the United States contribute to that air pollution. The endangerment finding has no effect on outside parties *in itself*; its importance is that it triggers a duty under section 202(a) for EPA to promulgate emission standards for the source category creating the endangerment—in this case, new motor vehicles. (See “May 7, 2010” for emission standards.)

## 2010

**February 8: Securities and Exchange Commission issues guidance regarding corporate disclosure related to climate change.** 75 Fed. Reg. 6290. This interpretive release provides guidance to public companies as to how existing Commission disclosure requirements apply to climate change matters.

**February 18: Council on Environmental Quality issues draft guidance under National Environmental Policy Act (NEPA).**<sup>16</sup> This guidance memorandum from the Council is titled “Draft NEPA Guidance on Consideration of the Effects of Climate Change and Greenhouse Gas Emissions.” It sets out ways in which federal agencies can improve their consideration of GHG effects in their evaluation of proposals for federal actions under NEPA, including in environmental impact statements.

**April 2: EPA finalizes its reconsideration of Johnson memorandum.**<sup>17</sup> 75 Fed. Reg. 17004. After taking comments on alternate interpretations of “subject to regulation” (see “December 31, 2008” above), EPA decided to continue with the interpretation published December 31, 2008, in the Johnson memorandum (more recently referred to as the “timing rule”). In a refinement, however, EPA stated that “subject to regulation” does not apply to a newly regulated pollutant (like GHGs) until a regulatory requirement to control emissions of that pollutant not only is promulgated, but also *takes effect*. For GHGs, that “regulatory requirement” is the new GHG emission standards for light-duty motor vehicles, noted immediately below. Since these standards do not take effect until January 2, 2011, PSD and Title V permitting requirements also will not go into effect until then—or later under EPA’s tailoring rule finalized June 3, 2010.

**May 7: EPA and NHTSA jointly finalize rules setting GHG emission standards and fuel economy standards for 2012-2016 model year light-duty vehicles.**<sup>18</sup> 75 Fed. Reg. 25323. The EPA emission standards (known as the “tailpipe rule”) are pursuant to the agency’s mandatory CAA duty to promulgate such standards once it finalizes its “endangerment finding” for new motor vehicles (see “December 15, 2009”). Regarding NHTSA, the Energy Policy and Conservation Act, as amended in 2007, requires that agency to prescribe separate fuel economy

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<sup>16</sup> The guidance is available at <http://www.whitehouse.gov/sites/default/files/microsites/ceq/20100218-nepa-consideration-effects-ghg-draft-guidance.pdf>. NEPA may be found at 42 U.S.C. § 4321 et seq.

<sup>17</sup> This is one of the EPA actions sustained in *Coalition for Responsible Regulation*, though only because plaintiffs were found to lack standing to challenge it. See note 14 *supra*. Based on the question that the Supreme Court has specified as its focus on review of this decision, the Court is likely to address the validity of EPA’s interpretation of “subject to regulation.”

<sup>18</sup> This is one of the EPA actions sustained in *Coalition for Responsible Regulation*. See note 14 *supra*. Though the Supreme Court has agreed to review this decision, review will be limited to a narrow question unrelated to the validity of the GHG emission standards for light-duty vehicles.

standards for passenger and non-passenger automobiles beginning with model year 2011, to achieve a combined fuel economy average for model year 2020 of at least 35 miles per gallon.<sup>19</sup> EPA and NHTSA acted jointly because motor vehicle GHG emissions are directly linked to fuel consumption. In order to provide a consistent set of standards for auto manufacturers to meet, the White House brokered an agreement under which EPA would develop GHG emissions standards under the CAA that would be compatible with fuel economy standards developed by NHTSA.

The EPA and NHTSA standards apply to passenger cars, light-duty trucks, and medium-duty passenger vehicles, covering model years 2012 through 2016, and purport to represent a harmonized and consistent national program. (California has announced its commitment to support the national program: on April 1, 2010, it revised its GHG standards for model years 2012-2016 such that compliance with the federal GHG standards will be deemed compliant with California's GHG standards.)<sup>20</sup> Both EPA and NHTSA standards become more stringent each year, culminating in an EPA fuel economy equivalent of 35.5 miles per gallon (mpg) and a NHTSA fuel economy (CAFE) standard of 34.1 mpg, in model year 2016—each standard an industry fleetwide average. Various factors explain the 35.5/34.1 difference.

**June 3: EPA finalizes “tailoring rule.”**<sup>21</sup> 75 Fed. Reg. 31514. This rule is to relieve the overwhelming permitting burdens EPA asserts would, in the absence of the rule, fall on PSD and Title V permitting authorities on January 2, 2011, when EPA's light-duty vehicle rule for GHGs (see immediately above) takes effect. The tailoring rule will begin, on January 2, 2011, with GHG emissions thresholds for PSD new source review and Title V that are much higher than those in the CAA (EPA hoping to phase in the statute's low statutory thresholds after many years). Indeed, the thresholds in the final tailoring rule are higher than those in the proposed rule. For example, beginning January 2, 2011, PSD requirements will apply to projects that increase net GHG emissions by at least 75,000 tons per year CO<sub>2</sub> equivalent, but only if the project also significantly increases emissions of at least one non-GHG pollutant. And no source emitting less than 50,000 tons per year CO<sub>2</sub> equivalent will be subject to PSD new source review or Title V permitting before April 30, 2016.

**August 13: EPA denies petitions to reconsider its endangerment finding for GHGs from new motor vehicles.** 75 Fed. Reg. 49556. After reviewing the 10 petitions, the agency concluded that its December 15, 2009, endangerment finding (above) remains well-supported. Several petitions argued that emails disclosed in late 2009, many from the Climate Research Center at the University of East Anglia in England, suggested bias among climate-change scientists, warranting a new look at the evidence for climate change and its causes.

**September 2: EPA proposes PSD new source review “SIP call,” and proposes FIP for states unable to timely submit corrective revisions.** 75 Fed. Reg. 53892, 53883, respectively. EPA proposes a rule finding that EPA-approved PSD new source review programs in 13 state implementation plans (SIPs) are substantially inadequate “because they do not appear to apply PSD requirements to GHG-emitting sources.” For each of these states, the same proposed rule

<sup>19</sup> 49 U.S.C. § 32902(b)(2)(A).

<sup>20</sup> See <http://www.arb.ca.gov/regact/2010/ghgpv10/ghgpv10.htm>.

<sup>21</sup> The tailoring rule is one of the EPA actions sustained in *Coalition for Responsible Regulation*, though only because plaintiffs were found to lack standing to challenge it. See note 14 *supra*. Based on the question that the Supreme Court has specified as its focus on review of this decision, the Court's ruling likely will touch on the validity of the tailoring rule.

requires it (through a SIP call) to correct its SIP. In a separate proposed rule, EPA sets out a proposed FIP for any state unable to submit, by EPA's deadline, its own SIP revision.<sup>22</sup> (See "December 15, 2010" below for final rule on SIP call, and "December 30, 2010" below for FIP for seven states.)

**November 10: EPA issues "PSD and Title V Permitting Guidance for Greenhouse Gases."**

Notice of availability and solicitation of comments at 75 Fed. Reg. 70254 (November 17, 2010); full text at <http://epa.gov/regulations/guidance/byoffice-oar.html>. EPA issued this guidance to assist permit writers and permit applicants in addressing the Clean Air Act's PSD and Title V permitting requirements for GHGs, which begin to apply on January 2, 2011, to certain new major stationary sources and major modifications of stationary sources (see "June 3, 2010" above: EPA finalizes "tailoring rule"). Particularly important is the guidance's discussion of the process EPA recommends for determining BACT for GHGs from such sources. (As of January 2, 2011, Clean Air Act section 165(a)(4)<sup>23</sup> will require installation of such technology on certain new major stationary sources and major modifications of stationary sources proposed for PSD areas of the country.) A modified version of this guidance was issued under the date "March 2011."

**December 13: EPA finalizes PSD new source review "SIP call."** 75 Fed. Reg. 77698. This final rule asserts a finding that the EPA-approved SIPs of 13 states are substantially inadequate to meet CAA requirements because they do not apply PSD requirements in their SIPs to GHG-emitting sources. Owing to this finding, the rule issues a SIP call for each of the 13 states to revise its SIP as necessary to correct such inadequacies,<sup>24</sup> with deadlines ranging from December 22, 2010, to December 1, 2011. Note: if the state fails to correct its SIP by the deadline, the CAA requires EPA to promulgate a FIP for the state. (See "September 2, 2010" for proposed rule.)

**December 21: EPA enters into settlements agreeing to issue new source performance standards for GHG emissions from "electric generating units" (power plants) and petroleum refineries.** Available at <http://www.epa.gov/airquality/pdfs/boilerghgsettlement.pdf> (power plants) and <http://www.epa.gov/airquality/pdfs/refineryghgsettlement.pdf> (petroleum refineries). The two settled lawsuits were petitions for review of EPA amendments to its existing new source performance standards (NSPSs) for, respectively, electric generating units<sup>25</sup> and petroleum refineries.<sup>26</sup> On each occasion, petitioners objected, EPA had declined to introduce NSPSs for GHG emissions. In the settlements, EPA agrees to (a) propose by July 26, 2011, NSPSs for GHG emissions from new/modified electric generating units and guidelines for existing electric generating units, then promulgate final NSPSs and guidelines by May 26, 2012, and (b) propose by December 10, 2011, NSPSs for GHG emissions from new/modified petroleum refineries and guidelines for existing petroleum refineries, then promulgate final NSPSs and guidelines by November 10, 2012. EPA may withdraw its approval of either settlement within 30 days after the public comment period. Note: EPA has not yet proposed either the NSPSs for electric generating units or for petroleum refineries, and thus has missed both proposal deadlines in the settlements.

<sup>22</sup> EPA is required to promulgate a FIP when a state fails to make a required SIP revision. CAA § 110(c)(1), 42 U.S.C. § 7410(c)(1).

<sup>23</sup> 42 U.S.C. § 7475(a)(4).

<sup>24</sup> As required by CAA § 110(k)(5), 42 U.S.C. § 7410(k)(5).

<sup>25</sup> 71 Fed. Reg. 9866 (2006).

<sup>26</sup> 73 Fed. Reg. 35838 (2008).

**December 30: EPA finalizes rule to narrow previous approval of state Title V permitting programs that apply to GHG-emitting stationary sources.** 75 Fed. Reg. 82254. This rule is a companion to that immediately below. It narrows EPA's previous approval of state Title V operating permit programs so that only stationary sources that exceed the GHG thresholds established in the "tailoring rule" (see "June 3, 2010") are covered as major sources by the federally approved Title V programs in the affected states. By thus raising the GHG emissions thresholds that apply Title V permitting to major sources in the affected states, this rule aims to reduce the number of stationary sources that will be required to have Title V permits, and thereby reduce Title V permitting burdens for state permitting agencies and sources in the affected states.

**December 30: EPA finalizes rule to narrow previous approval of SIP PSD programs that apply to GHG-emitting stationary sources.** 75 Fed. Reg. 82536. This rule is a companion to that immediately above. It narrows EPA's previous approval of SIP PSD programs that apply to GHG-emitting stationary sources, by withdrawing approval of those programs to the extent they apply PSD to GHG-emitting sources below the thresholds in the "tailoring rule" (see "June 3, 2010"). By thus raising the thresholds in 24 states above the statutory threshold, this rule aims to reduce the number of new stationary sources, or major modifications of existing sources, that will be required to have PSD permits, and thereby reduce PSD permitting burdens for state permitting agencies and sources in the affected states.

**December 30: EPA establishes GHG PSD federal implementation plans for seven states.** 75 Fed. Reg. 82246. Following up on the December 13, 2010, SIP call (above), this EPA rule finalizes a FIP to apply in each of the seven states that did not submit by the December 22, 2010, EPA deadline a revised SIP to apply their EPA-approved PSD program to GHG emissions. These states are: Arizona (most of state), Arkansas, Florida, Idaho, Kansas, Oregon, and Wyoming. Other states have later deadlines. The FIP ensures that a permitting authority—that is, EPA—is available in these states as of January 2, 2011, the date when the CAA's PSD requirements begin applying to GHG-emitting sources (see "April 2, 2010" for how January 2, 2011, was chosen). Without a permitting authority to issue CAA-required permits, proposed major stationary sources and major modifications of existing sources could not begin construction if they would emit GHGs in quantities above the tailoring rule thresholds. (See "September 2, 2010" for proposed FIP.)

**December 30: EPA converts previous full approval of Texas's PSD program to partial approval, and promulgates FIP applying PSD to large GHG-emitting stationary sources.** 75 Fed. Reg. 82430. In this rule, EPA finds that it erred when it fully approved Texas's PSD program in 1992, since the program did not address its application to all pollutants newly subject to regulation, including GHGs. As a result, this rule changes EPA's 1992 approval from full to partial.<sup>27</sup> This change requires EPA under the CAA to issue a FIP,<sup>28</sup> which the rulemaking also does. Under the FIP, EPA will become the permitting authority for proposed GHG-emitting stationary sources in Texas in accordance with the emissions thresholds in the tailoring rule. Without a permitting authority to issue CAA-required permits, proposed major stationary sources and major modifications of existing sources in Texas could not begin construction if they would emit GHGs in quantities above the tailoring rule thresholds.

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<sup>27</sup> See CAA § 110(k)(6), 42 U.S.C. § 7410(k)(6).

<sup>28</sup> See CAA § 110(c)(1), 42 U.S.C. § 7410(c)(1).

## 2011

**July 20: EPA finalizes rule deferring application of PSD and Title V permitting requirements to CO<sub>2</sub> emissions from bioenergy and other biogenic stationary sources.**<sup>29</sup> 76 Fed. Reg. 43490. Such CO<sub>2</sub> emissions are generated by combustion or decomposition of biologically based material—as at solid waste landfills, manure management operations, and electric utilities burning biomass fuels. The deferral, to allow EPA more time to examine how to account for such emissions, is for three years. During this period, biogenic emissions are not required to be counted for determining whether a source is subject to PSD and Title V permitting. The deferral applies only to CO<sub>2</sub> emissions and does not affect non-GHG pollutants or other GHGs emitted from the combustion of biomass fuel. EPA is taking this action as part of granting the petition for reconsideration filed by the National Alliance of Forest Owners on August 3, 2010, related to the tailoring rule (see “June 3, 2010” above).

**September 15: EPA and NHTSA jointly finalize rules setting GHG emission standards and fuel economy standards for 2014 and later model year medium- and heavy-duty vehicles.** 76 Fed. Reg. 57106. These rules, weighing in at 958 pages (including preamble), respond to a presidential memorandum of May 21, 2010,<sup>30</sup> as well as the CAA. EPA’s emission standards and NHTSA’s fuel economy standards apply to three categories of heavy-duty vehicles: combination tractors, heavy-duty pickup trucks and vans, and vocational vehicles. The rules include separate standards for the engines that power combination tractors and vocational vehicles. Certain rules are exclusive to EPA, such as EPA’s hydrofluorocarbon standards to control leakage from air conditioning systems in combination tractors, and pickup trucks and vans. EPA’s emission standards will begin with model year 2014. NHTSA’s fuel economy standards are voluntary in model years 2014 and 2015, becoming mandatory for most vehicle categories in model year 2016.

## 2012

**April 13: EPA proposes new source performance standards for CO<sub>2</sub> emissions from new fossil-fuel-fired electric generating units.** 77 Fed. Reg. 22392. The proposed rule, pursuant to CAA Section 111, would require new fossil-fuel-fired electric generating units (power plants) of greater than 25 megawatt capacity to meet an output-based standard of 1,000 pounds of CO<sub>2</sub> per megawatt-hour—a standard based, according to EPA, on the performance of widely used natural gas combined cycle technology. EPA had committed to issuing this proposed rule by July 26, 2011, in a settlement of litigation. See “December 21, 2010.”

**June 29: EPA finalizes Step 3 of its tailoring rule in which the GHG major source thresholds established in Step 1 and Step 2 are left unchanged.** 77 Fed. Reg. 41051. Under Step 1 of the tailoring rule (see “June 3, 2010”), which began on January 2, 2011, stationary sources above the tailoring-rule GHG threshold that are required to obtain a PSD or Title V operating permit

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<sup>29</sup> This rule was vacated by *Center for Biological Diversity v. EPA*, 722 F.3d 401 (D.C. Cir. 2013), though by then the three-year deferral had only one more year to run.

<sup>30</sup> Administration of Barack H. Obama, Memorandum on Improving Energy Security, American Competitiveness and Job Creation, and Environmental Protection Through a Transformation of Our Nation’s Fleet of Cars and Trucks (May 21, 2010), available at <http://www.gpo.gov/fdsys/pkg/DCPD-201000409/pdf/DCPD-201000409.pdf>.

anyway due to emissions of other pollutants must address their GHG emissions in the permit. Step 2, effective July 1, 2011, adds to Step 1. Under Step 2, sources with GHG emissions above the tailoring-rule threshold also are required to obtain a PSD or Title V operating permit, even if they would not require these permits based on emissions of other pollutants. EPA now finds that the capabilities of state permitting authorities have not improved enough for additional GHG sources to be brought under PSD or Title V. Therefore, Step 3 will leave the GHG major source thresholds unchanged at this time. EPA also finalizes an approach to assist state and local permitting authorities in streamlining the administration of PSD permits for GHGs, by enhancing the usefulness of “plantwide applicability limitations.”

**October 15: EPA finalizes rule setting GHG emission standards for 2017-2025 model year light-duty vehicles; NHTSA finalizes rule setting fuel economy standards for 2017-2021 model year light-duty vehicles and offers “best estimate” of fuel economy standards for 2022-2025 model year light-duty vehicles.** 77 Fed. Reg. 62624 (minor correction on October 18, 2012, at 77 Fed. Reg. 64051). These rules respond to a presidential memorandum of May 21, 2010,<sup>31</sup> as well as the CAA. The standards apply to passenger cars, light-duty trucks, and medium-duty passenger vehicles and build on the model year 2012-2016 light-duty vehicle standards (see “May 7, 2010” above). EPA’s emission standards will be more stringent each year from 2017 to 2025, achieving, as an industry fleetwide average, the equivalent of 54.5 miles per gallon (mpg) in model year 2025—if the emission reductions are achieved solely through improvements in fuel efficiency. The first phase of NHTSA’s CAFE standards, for model years 2017-2021, is projected to require, on an average industry fleetwide basis, a range from 40.3 to 41.0 mpg in model year 2021. The second-phase standards, for model years 2022-2025, are not final, due to a statutory requirement that NHTSA set CAFE standards not more than five model years at a time. NHTSA projects that these standards could require, on an average industry fleetwide basis, from 48.7-49.7 mpg in model year 2025.

See entry for May 7, 2010, for statutory and historical background.

## 2013

**May 30: Office of Management and Budget issues Technical Update of the Social Cost of Carbon for Regulatory Impact Analysis Under Executive Order No. 12866.**<sup>32</sup> The “social cost of carbon” estimates in this interagency “technical support document” are to facilitate federal agency incorporation of the social benefits of reducing CO<sub>2</sub> emissions into cost-benefit analyses of proposed regulatory actions. Under Executive Order 12866,<sup>33</sup> federal agencies are required to assess the costs and benefits of proposed regulations. The social cost of carbon estimates in this current version of the technical support document are based on updated versions of the assessment models and are higher than those used in the 2010 technical support document.<sup>34</sup>

**June 25: President Obama issues Power Sector Carbon Pollution Standards memorandum setting deadlines for EPA issuance of standards.** 78 Fed. Reg. 39535 (July 1, 2013). The

<sup>31</sup> *Id.*

<sup>32</sup> Available at <https://www.federalregister.gov/articles/2013/11/26/2013-28242/technical-support-document-technical-update-of-the-social-cost-of-carbon-for-regulatory-impact>.

<sup>33</sup> 58 Fed. Reg. 51735 (1993).

<sup>34</sup> Minor corrections were made in the May 30, 2013, document in November 2013.

memorandum directs EPA to issue a revised version of its 2012 proposed new source performance standards for GHG emissions from new fossil-fuel power plants. The revised proposed rule is due by September 20, 2013, to be followed by issuance of a final rule “in a timely fashion.” (The proposed rule was indeed announced by the deadline; see below.) The memorandum also directs EPA to issue standards, regulations, or guidelines, as appropriate, for carbon emissions from existing power plants: a proposed rule by June 1, 2014, a final rule by June 1, 2015, and a requirement that states submit implementation plans by June 30, 2016.<sup>35</sup>

## 2014

**January 8: EPA withdraws April 13, 2012, proposed new source performance standards for CO<sub>2</sub> emissions from new fossil-fuel-fired electric generating units, and proposes revised standards.** 79 Fed. Reg. 1352 (withdrawal of 2012 proposal); 79 Fed. Reg. 1430 (proposed revised standards). This withdrawal and proposal of revised standards was announced by EPA on September 20, 2013, the deadline in the President’s June 25, 2013, memorandum (above), but took 3½ months to appear in the *Federal Register*, possibly because of minor revisions. The withdrawal and reproposal was necessitated by the 2.5 million comments received on the 2012 proposal and new information, requiring substantial changes affecting both what sources are covered and what covered sources must do to comply. The revised proposal establishes separate new source standards of performance for fossil-fuel-fired electric steam generating units (EGUs) and integrated gasification combined cycle (IGCC) units on the one hand, and for natural-gas-fired stationary combustion engines on the other—reflecting EPA’s separate determinations of the “best system of emission reduction ... adequately demonstrated,” the emissions standard mandated by the CAA.<sup>36</sup> For EGUs and IGCC units, the standards are based on partial use of carbon capture and storage as the best system of emission reduction; for natural-gas-fired stationary combustion engines, they are based on natural gas combined cycle technology. EPA authority to issue new source performance standards is in CAA section 111(b).<sup>37</sup>

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<sup>35</sup> See CAA § 111(d); 42 U.S.C. § 7411(d).

<sup>36</sup> CAA § 111(a)(1); 42 U.S.C. § 7411(a)(1).

<sup>37</sup> 42 U.S.C. § 7411(b).

## Appendix. Table of Acronyms

Acronym	
BACT	Best available control technology. This is the pollution control standard in PSD areas. BACT is defined in Clean Air Act Section 169(3).
CAA	Clean Air Act. Codified at 42 U.S.C. §§ 7401-7671q.
CAFE	Corporate average fuel economy. The text uses “CAFE standards” synonymously with “fuel economy standards.”
CEQ	Council on Environmental Quality, the agency charged with monitoring executive branch implementation of the National Environmental Policy Act. 42 U.S.C. §§ 4342, 4344.
EPA	Environmental Protection Agency
FIP	Federal implementation plan. Clean Air Act Section 110(c) requires EPA to issue a FIP for a state, setting out emission limits for stationary sources in the state, whenever the state fails to submit a required SIP or a state-submitted SIP does not meet minimum criteria.
GHG	Greenhouse gas
NEPA	National Environmental Policy Act. 42 U.S.C. § 4321 et seq. NEPA requires federal agencies to prepare environmental impact statements for proposed “major federal actions significantly affecting the quality of the human environment.” <i>Id.</i> at § 4332(2)(C).
NHTSA	National Highway Traffic Safety Administration
NSPS	New source performance standards. These apply to any stationary source of emissions the construction or modification of which is begun after the NSPS is proposed. Defined in Clean Air Act Section 111(a)(1).
PSD	Prevention of significant deterioration. Under the Clean Air Act, PSD areas are regions where the ambient concentration of a pollutant is below (cleaner than) the National Ambient Air Quality Standard for that pollutant, triggering the act’s regime for “preventing significant deterioration” of that air quality. See 42 U.S.C. §§ 7470-7492.
SEC	Securities and Exchange Commission
SIP	State implementation plan. Clean Air Act Section 110(a)(1) requires each state to submit a SIP to EPA to achieve each National Ambient Air Quality Standard within that state. The state has discretion in imposing emission limits on stationary sources within the state as long as the National Ambient Air Quality Standard is achieved.

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