NACAA
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Background and History of EPA Regulation of Greenhouse Gas (GHG) Emissions Under the Clean Air Act & National Association of Clean Air Agencies' Comments on EPA GHG Regulatory and Policy Proposals

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Summary

This document provides a background and history of the U.S. Environmental Protection Agency's (EPA's) regulation of greenhouse gas (GHG) emissions under the Clean Air Act (CAA or Act) and the National Association of Clean Air Agencies' (NACAA's) comments on EPA GHG regulations or policies.

In short, the Supreme Court in 2007 ruled that GHGs fit within the definition of "air pollutant" under the Clean Air Act,[1] thus setting in motion a regulatory process leading to EPA's regulation of GHG emissions under the CAA. EPA conferred with state and local clean air agencies regarding their concerns about the workload brought about by GHG permitting regulations and responded by delaying the timing of GHG permitting applicability and narrowing the scope of coverage.

History Leading Up to Regulation – 1999-2007

The path to EPA regulation of GHG emissions begins in 1999, when the International Center for Technology Assessment (ICTA) and 18 other organizations filed a petition for rulemaking with EPA, requesting that EPA regulate GHG emissions from new motor vehicles and new motor vehicle engines under section 202 of the CAA.[2] The petitioners argued that GHG emissions met the definition of "air pollutant" under the CAA, that GHG emissions contributed to pollution that is reasonably anticipated to endanger public health and welfare and that it was technically feasible to reduce GHG emissions from light-duty vehicles. Thus, the groups argued, EPA must regulate these emissions. In their petition, the groups cited a 1998 legal opinion from EPA's general counsel that carbon dioxide (CO_2) emissions clearly met the definition of "air pollutant" in section 302(g) of the Act.[3]

On January 23, 2001, EPA published a notice seeking comment on the petition.[4] On September 8, 2003, EPA published a notice denying the petition for rulemaking.[5] EPA said it did not believe the CAA authorized regulation to deal with global climate change and, even if GHG regulation under the CAA was possible, EPA gave a number of policy reasons why it did not think regulation of GHG emissions under the CAA was appropriate.

On October 18, 2003, ICTA, 13 other environmental organizations, 12 states, three cities and one U.S. territory filed a petition for review of EPA's decision with the U.S. Court of Appeals

[1] Almost all subsequent EPA GHG regulation has flowed from the consequences of that court decision (*Massachusetts v. EPA*, 549 U.S. 497 (2007). The exception is the Greenhouse Gas Mandatory Reporting Rule, which was required by Congressional legislation (the Fiscal Year 2008 Consolidated Appropriations Act (H.R. 2764)). This document does not discuss this rule since it was authorized by independent legislation.
[2] Petition is available at http://www.icta.org/doc/ghgpet2.pdf. Specifically, the petition sought regulation of emissions of carbon dioxide, methane, nitrous oxide and hydrofluorocarbons.
[3] Id. at 10.
[4] 66 *Federal Register* 7486.
[5] 68 *Federal Register* 52922.

for the D.C. Circuit.[6] On July 15, 2005, the court issued a split decision.[7] The court denied the petition by a vote of 2 to 1, but the judges split in their reasoning. Judge Randolph upheld EPA's denial of the petition based on policy considerations. Judge Sentelle joined Judge Randolph in his opinion, but wrote separately. Sentelle's view was that the court lacked jurisdiction to hear the case because the petitioners failed to meet the requirements for standing because they did not allege a particularized injury to themselves, since global warming affects all humans. The third judge in the case, David Tatel, issued a strong dissent, finding that EPA had authority to regulate, that petitioners did have standing and that EPA relied on impermissible policy reasons that are not in CAA section 202(a)(1) in rejecting the petition. The groups filed an appeal with the U.S. Supreme Court.

In the meantime, California submitted on December 21, 2005, a request to EPA that the agency waive CAA section 209(a)'s prohibition against states adopting emissions standards for new motor vehicles (i.e., that EPA grant a section 209 waiver). California had established GHG emissions standards for new light-duty vehicles and vehicle engines for model years (MYs) 2009-2016, standards which also had been adopted by 13 other states and the District of Columbia. For the states to enforce these standards, EPA needed to grant a section 209 waiver. EPA responded to California on February 21, 2007, that it was awaiting the Supreme Court decision before responding to the section 209 waiver request.

On April 2, 2007, the Supreme Court released its decision.[8] By a vote of 5-4, the Court found that the appellants had standing, that EPA had authority to regulate GHG emissions from new motor vehicles under the Clean Air Act and that the reasons EPA gave for not regulating these emissions were "divorced from the statutory text."[9] The majority opinion was authored by Justice Stevens and joined by Justices Breyer, Ginsburg, Kennedy and Souter. The court strongly criticized EPA's decision and reasoning in refusing to regulate GHG emissions from new motor vehicles. First, it examined EPA's argument that GHGs were not "air pollutants" as defined in the Act. The court said the statute contained a "sweeping definition" of air pollutant that "embraces all airborne compounds of whatever stripe," and CO_2 and other GHGs "without a doubt" fit the statutory definition of "air pollutant" in the Act.[10] Furthermore, the court rejected EPA's contention that regulation of CO_2 emissions from motor vehicles would require the agency to tighten fuel efficiency standards, which are set by the U.S. Department of Transportation (DOT). That "DOT sets mileage standards in no way licenses EPA to shirk its environmental responsibilities" – the obligations of the two agencies may overlap, "but there is no reason to think the two agencies cannot both administer their obligations and yet avoid inconsistency."[11]

Thus finding that GHGs clearly fall within the definition of "air pollutant," the Court then addressed whether EPA acted arbitrarily and capriciously in rejecting the petition calling for it to regulate GHG emissions from new motor vehicles. The Court found that EPA had so acted. The

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[6] The petition is available at http://www.icta.org/doc/Pet%20Rev%20-%20Consol%20Order%2010-23-03.pdf. Briefs related to the case are posted at http://www.icta.org/global/actions.cfm?page=1&type=364&topic=4.
[7] 415 F.3d 50 (D.C. Cir. 2005).
[8] *Massachusetts v. EPA*, 549 U.S. 497 (2007).
[9] Id. at 1462.
[10] Id. at 1459.
[11] Id. at 1462.

CAA gives EPA discretion on regulating, but that discretion is cabined, the court said: EPA "must ground its reasons for action or inaction in the statute."[12] Instead, EPA provided "a laundry list of reasons not to regulate . . . [and] it is evident they have nothing to do with whether [GHG] emissions contribute to climate change."[13] The court said that if scientific uncertainty on global warming "is so profound it precludes EPA from making a reasoned judgment as to whether GHG emissions contribute to global warming, EPA must say so."[14] That EPA preferred not to regulate because of some "residual uncertainty ... is irrelevant," the court said.[15] The court remanded the matter for further proceedings consistent with its opinion, thus sending the petition back to EPA for action.

In short, the Supreme Court decision *required* that EPA make a decision and not simply defer a decision, and it sharply limited which reasons the agency could cite in deciding not to regulate GHG emissions.[16] The only points of discretion afforded EPA were in determining 1) whether GHG emissions contribute to global warming and 2) whether sufficient information existed to make a finding that global warming "may reasonably be anticipated to endanger public health and welfare," as provided in section 202(a)(1).

GHG Regulatory Prelude – 2007-2008

Now that the Supreme Court decision had been issued, EPA could respond to California's request for a section 209 waiver. The agency published on April 30, 2007, a notice seeking comment on the section 209 waiver request.[17] NACAA submitted comments on June 15, 2007, supporting California.[18] The agency denied the request on March 6, 2008.[19] The Administrator said he based his decision on his view that section 209(b) was intended to allow California to address pollution problems that were local and regional in nature, not global climate change. Furthermore, he said he did not "believe that the effects of climate change in California are compelling and extraordinary compared to the effects in the rest of the country."[20]

On July 30, 2008, EPA released an Advance Notice of Proposed Rulemaking on Regulating GHG Emissions Under the Clean Air Act (GHG ANPR).[21] The agency said it was issuing an ANPR to review the potential provisions – regulatory pathways – under the CAA that might be applicable to regulating GHGs. The GHG ANPR also examined the pros and cons of the regulatory pathways and provided information about possible regulatory approaches and technologies for reducing GHG emissions. In the notice, the agency also included critical comments from other federal agencies. The notice also contained a statement from the Administrator that "the ANPR

[12] Id. at 1463.
[13] Id. at 1462-1463.
[14] Id. at 1463.
[15] Id.
[16] This is strongly criticized by Justice Scalia in his dissent. He says executive agencies routinely decide not to take action based on policy reasons not expressly mentioned in a statute and that the majority failed to give due deference to this prioritization.
[17] 72 *Federal Register* 21260.
[18] The comments are posted at http://members.4cleanair.org/rc_files/4004/CAWaiverComments.Final.61507.pdf.
[19] 73 *Federal Register* 12156.
[20] Id. at 12157.
[21] 73 *Federal Register* 44354.

demonstrates [that] the Clean Air Act, an outdated law originally enacted to control regional pollutants that cause direct health effects, is ill-suited for the task of regulating global greenhouse gases."[22]

On November 26, 2008, NACAA submitted comments on the GHG ANPR.[23] In its comments, NACAA urged that the appropriate authorities under the Clean Air Act be deployed to address global warming. NACAA said the scientific evidence clearly demonstrated that GHGs endanger public health and welfare and thus EPA should promptly issue a GHG endangerment finding. With respect to regulatory pathways, NACAA supported regulating GHG emissions from motor vehicles under the Clean Air Act. For stationary sources, NACAA said it thought the New Source Performance Standards (NSPS) authorities in section 111 of the Act offered the most value. NACAA also supported regulating GHGs under the Prevention of Significant Deterioration (PSD) program, as long as some adjustments were made. NACAA recommended that the agency consider adopting a regulatory threshold that only captured larger sources of GHG emissions and suggested consideration of a threshold in the range of between 10,000 and 25,000 tons per year (tpy). NACAA said that it believed that the National Ambient Air Quality Standards system was not the best tool for regulating GHGs, nor was the hazardous air pollutant framework in section 112 well-suited for regulating GHGs. NACAA also said that whatever regulatory or legislative path was chosen for limiting GHG emissions, state and local authorities to enact stronger requirements should not be preempted.

GHG Regulations Begin – 2009-2010

On February 12, 2009, following a change in Administration, EPA published a notice to reconsider the agency's previous denial of California's section 209 waiver. Furthermore, on April 24, 2009, EPA proposed a finding that GHG emissions endangered public health and welfare and that GHG emissions from new motor vehicles and new motor vehicle engines were contributing to air pollution that endangers public health and welfare (the "Endangerment Finding").[24] NACAA submitted comments in support of the reconsideration[25] and the Endangerment Finding.[26] On July 8, 2009, EPA announced it was withdrawing the previous waiver denial and granting the section 209 waiver.[27] The agency found that opponents of the waiver had not met their burden of showing that California did not need its state standards to meet compelling and extraordinary conditions or that California no longer needed its motor vehicle program. On December 15, 2009, EPA issued the final Endangerment Finding.[28]

With the final GHG Endangerment Finding completed, EPA now could move forward with regulating GHG emissions from new motor vehicles and new motor vehicle engines. EPA and

[22] Id. at 44355.
[23] Comments are posted at http://members.4cleanair.org/rc_files/4484/NACAA_Comments_on_GHGANPRM-FINAL-letterhead.pdf.
[24] 74 *Federal Register* 18886.
[25] Comments are posted at http://members.4cleanair.org/rc_files/4606/CAWaiverNACAAWrittenCommentsonEPAReviewofDenial040609FINAL.pdf.
[26] Comments are posted at http://www.4cleanair.org/Documents/NACAAEndangermentCommentsFINALlthd.pdf.
[27] 74 *Federal Register* 32744.
[28] 74 *Federal Register* 66496.

DOT had, prior to the finalization of the GHG Endangerment Finding, proposed to issue joint Corporate Average Fuel Economy (CAFE) and GHG emissions standards for new motor vehicles and motor vehicle engines for MYs 2012-2016.[29] NACAA submitted comments in support of this proposal on November 24, 2009.[30] On May 7, 2010, EPA and DOT issued final GHG emissions standards and CAFE standards for new light-duty vehicles and engines for MYs 2012-2016 (the "Tailpipe Rule").[31]

Before finalizing its motor vehicle GHG emissions regulations, however, EPA needed to address the impact of these regulations on stationary source regulatory programs. Under EPA's longstanding interpretation of the Clean Air Act, once GHGs became a regulated pollutant under the Act, then PSD and Title V permitting provisions immediately apply to GHG emissions from stationary sources.[32] The thresholds for major source permitting in the Act are 100 or 250 tpy, which – if unchanged – would subject millions of new and existing sources to GHG permitting requirements. Thus, EPA took two actions to address stationary source GHG regulation. The first had to do with timing – when would GHGs be subject to PSD and NSR regulation? On October 7, 2009, EPA issued a proposed reconsideration of its prior regulatory interpretation of the phrases "subject to regulation" and "regulated pollutant" under the Clean Air Act.[33] The prior regulatory interpretation was contained in a memo issued by former EPA Administrator Stephen Johnson, which stated the agency's view that the "subject to regulation" provision of the "regulated NSR pollutant" definition would "include each pollutant subject to either a provision in the Clean Air Act or regulation adopted by EPA under the Clean Air Act that requires *actual control* of emissions of that pollutant."[34] EPA's reconsideration stated that this remained the agency's preferred interpretation. In addition, the agency suggested that a pollutant become "subject to regulation" under the Clean Air Act on the effective date of a control regulation. This would have meant that GHGs would be subject to PSD and Title V permitting programs on the date when the light-duty vehicle rule for MY 2012 vehicles became effective (July 6, 2010).[35] On December 7, 2009, NACAA submitted comments[36] suggesting, instead, that EPA adopt an interpretation that a pollutant becomes "subject to regulation" when the control regulation "takes effect." According to this interpretation, then, GHGs would become a regulated pollutant at the earliest on January 2, 2011, the date the motor vehicle GHG emissions standards would take effect.[37]

In its final rule (the "Timing Rule"), issued April 2, 2010, EPA adopted NACAA's interpretation on timing. Under Title II, the earliest the regulations could have taken effect would

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[29] 74 *Federal Register* 49454 (September 28, 2009).
[30] Comments are posted at http://www.4cleanair.org/Documents/NACAACommentsonProposedVehicleGHGCAFEStdsFinal112409.pdf.
[31] 75 *Federal Register* 25324.
[32] EPA's PSD regulations define a regulated NSR pollutant to include ''[a]ny pollutant that otherwise is subject to regulation under the Act'' and requires BACT for ''each regulated NSR pollutant,'' 40 CFR 52.21(b)(50) and (j). The Clean Air Act requires BACT for ''each pollutant subject to regulation under this [Act],'' CAA sections 165(a)(4) and 169.
[33] 74 *Federal Register* 51535.
[34] Id. at 51539 (emphasis added).
[35] See 75 *Federal Register* 17004.
[36] Comments are posted at http://www.4cleanair.org/Documents/JohnsonMemoNACAACommentsFINAL120709.pdf.
[37] NACAA also suggested some alternative interpretations that would provide a later effective date.

be January 2, 2011, the earliest date a MY 2012 vehicle could enter the stream of commerce.[38] This is the date EPA determined GHGs become "subject to regulation" for PSD and Title V permitting purposes.

The second issue EPA faced with respect to stationary source GHG regulation was the threshold at which facilities would be subject to PSD and Title V permitting requirements. Under the statute and regulations, the PSD program applies to any source on a specified list of 28 source categories that emits, or has the potential to emit, 100 tpy or more of any pollutant subject to regulation under the Act, or to any other source type that emits, or has the potential to emit, such pollutants in amounts equal to or greater than 250 tpy ("the 100/250-tpy thresholds"). Should the agency have allowed these thresholds to govern soon-to-be mandatory PSD and Title V permitting of GHG-emitting sources, the number of permits that would have to be processed would have been overwhelming.

Accordingly, on October 7, 2009, EPA published a proposal to "tailor" the major source applicability thresholds for GHG emissions under the PSD and Title V programs and to set a PSD significance level for GHG emissions.[39] EPA estimated that the increase in the number of facilities requiring a PSD permit as a result of its GHG emissions under the 100/250-tpy threshold would rise from 280 per year to 81,598 and those needing a Title V permit would increase from 14,700 to 6 million.[40] Concluding that these numbers justified a phase-in of the permitting requirements under the legal doctrines of "absurd results," "administrative necessity" and "one-step-at-a-time," EPA proposed a phased-in schedule for permitting the majority of large GHG-emitting facilities. The first phase, which would last six years, would establish a temporary level for the PSD and Title V applicability thresholds at 25,000 tpy, on a CO_2 equivalent (CO_2e) basis, and a temporary PSD significance level for GHG emissions of between 10,000 and 25,000 tpy CO_2e. EPA would conduct an administrative feasibility study and then promulgate a second phase. NACAA submitted comments on the proposal that in general supported the thrust of EPA's proposal but made suggestions to help alleviate the burden on state and local resources.[41]

On June 3, 2010, EPA issued the final rule (the "Tailoring Rule").[42] EPA adopted several of NACAA's most important suggestions. First, as noted above, EPA delayed when GHG permitting would begin – to January 2, 2011. Second, EPA raised the GHG threshold and implemented a step-down approach, both of which were changes from its proposed rule. NACAA recommended that EPA raise the proposed GHG threshold to 50,000 tpy CO_2e and then step down to 25,000 tpy CO_2e after three years. In the final Tailoring Rule, EPA raised the threshold to 100,000 tpy major source/75,000 tpy significance level, and implemented it through a two-step approach. EPA also promised further rulemaking in 2011 to assess smaller sources, but said it would not lower the threshold below 50,000 tpy until at least 2016. Third, EPA required sources to include GHGs in Title V permits according to the normal Title V permitting schedule. NACAA had recommended that sources be required to include GHGs in a Title V permit at the time the permit would normally

[38] 75 *Federal Register* at 17019.
[39] 74 *Federal Register* 55292.
[40] 75 *Federal Register* 31535-31536.
[41] Comments are posted at http://members.4cleanair.org/rc_files/4821/Tailoring%20Rule-NACAA%20Comments-FINAL-122809.pdf.
[42] 75 *Federal Register* 31514.

be up for renewal or, for new sources, one year after becoming subject to regulation according to the rules governing Title V. In the final Tailoring Rule, EPA adopted this recommendation, requiring sources to address GHGs when they apply for, renew or revise their Title V permits.

In the latter half of 2010, EPA issued a series of related rules to conform State Implementation Plans (SIPs), SIP approvals and Title V programs to the thresholds in the Tailoring Rule and to ensure GHGs were considered regulated pollutants in the subject states.[43] In addition, EPA issued PSD and Title V Permitting Guidance for GHGs[44] and a series of white papers that provided technical information that "may be useful in a Best Available Control Technology analysis, but they do not define BACT for each sector." This guidance was developed with input from a federal advisory group of stakeholders organized under the auspices of the Clean Air Act Advisory Committee. Several NACAA members participated on the workgroup, including the two co-chairs of the NACAA New Source Review subcommittee. The sectors covered include power plants, large industrial/commercial/institutional boilers, pulp and paper facilities, cement plants, the iron and steel industry, refineries and nitric acid plants.[45]

GHG Regulations – 2011 and beyond

These next sections are organized by issue area and then chronologically within the section.

Legal Challenges to Foundational EPA Rules

The GHG Endangerment Finding, Tailpipe Rule, Timing Rule and Tailoring Rule were challenged in court by numerous industry groups and state and local petitioners. Other states and localities and numerous environmental organizations intervened on EPA's behalf in support of the rules. Following an unprecedented two full days of oral argument, on June 26, 2012, the U.S. Court of Appeals for the D.C. Circuit issued a consolidated opinion rejecting all the petitioners' challenges and upholding all four GHG regulations.[46] The court concluded 1) the Endangerment Finding and Tailpipe Rule were neither arbitrary nor capricious; 2) EPA's interpretation of the governing Clean Air Act provisions was unambiguously correct; and 3) no petitioner had standing to challenge the Timing and Tailoring Rules (because the petitioners were not harmed by the rules). Petitioners' motions for rehearing en banc were subsequently denied. In spring 2013, nine separate petitions for a writ of certiorari were filed with the U.S. Supreme Court, asking the Court to review and overturn the D.C. Circuit's decision and declare one or more of the GHG rules unlawful. These petitions are fully briefed and the Court is scheduled to consider whether it will review the lower court's opinion on September 30, 2013.

Permitting

Biogenic Emissions

[43] 75 *Federal Register* 77698; 75 *Federal Register* 82536 and 82254; and 75 *Federal Register* 82246 (finding of failure is at 75 *Federal Register* 81874). Texas-specific notices are at 75 *Federal Register* 82365 and 82430,
[44] Guidance is posted at http://www.epa.gov/nsr/ghgdocs/ghgpermittingguidance.pdf.
[45] See http://www.epa.gov/nsr/ghgpermitting.html.
[46] *Coalition for Responsible Regulation v. EPA*, 684 F.3d 102 (2012).

In 2011, EPA took steps to defer GHG permitting requirements for CO_2 emissions from biomass-fired and other biogenic sources. On March 14, 2011, EPA issued guidance for determining BACT for reducing CO_2 emissions from bioenergy production for states to apply prior to the agency finalizing its proposal to defer the application of PSD and Title V provisions to biogenic CO_2 emissions from bioenergy (proposed March 21, 2011).[47] The rule, finalized on July 20, 2011,[48] deferred the application of both PSD and Title V permitting requirements associated with CO_2 emissions from bioenergy and other biogenic stationary sources for a three-year period, during which EPA would conduct a "detailed examination of the science associated with biogenic CO_2 emissions from stationary sources" and address technical issues that the agency determined must be resolved before applying permitting requirements to these sources. However, on July 12, 2013, the Deferral Rule was vacated by the U.S. Court of Appeals for the D.C. Circuit, which found EPA acted arbitrarily and capriciously in adopting a blanket deferral for biogenic CO_2 sources without considering a narrower approach.[49] The court left open the possibility that EPA could still adopt a permanent exemption for biogenic sources. It would consider the merits of such a rule based on its underlying record, if and when the agency decides to adopt such an exemption and its legality is challenged. In the meantime, the legality of permits issued under a rule that the court has determined to be unlawful has been called into question.

Step 3 of the Tailoring Rule

EPA issued its proposed Step 3 Rule on March 8, 2012, and proposed retaining the current GHG permitting thresholds of 100,000 / 75,000 tpy CO_2e.[50] NACAA submitted comments supporting EPA's proposal.[51]

EPA also proposed two streamlining approaches for GHG permitting. The first approach proposed by EPA would increase flexibility for the use of Plantwide Applicability Limitations (PALs) for GHGs. The agency proposed increasing this flexibility by: 1) allowing the issuance of PALs to GHG only sources; 2) allowing the issuance of GHG PALs on either a mass or CO_2e basis; 3) establishing a CO_2e threshold of 75,000 tpy; and 4) allowing compliance with GHG PALs as an alternative applicability approach. EPA further proposed potential options for allowing GHG-only sources to obtain a GHG PAL. However, the agency did not propose specific rule language. NACAA commented that the association generally supports the provision of increased flexibility for the use of GHG PALs but requested that EPA clarify its proposed approach by proposing specific rule language for review and comment. In addition, the association said that EPA must also ensure that the use of GHG PALs remains subject to the discretion of individual permitting authorities.

The second streamlining approach proposed by EPA in the Proposed Step 3 Rule would allow EPA to issue GHG synthetic minor permits in areas where EPA is the PSD permitting authority. NACAA commented that the association generally supports this approach but noted that the rule language proposed by EPA appears to be overly detailed and may result in overly complex

[47] 76 *Federal Register* 15249.
[48] 76 *Federal Register* 43490.
[49] *Center for Biological Diversity v. EPA*, D.C. Cir. No. 11-1101 (July 12, 2013).
[50] 77 *Federal Register* 14226
[51] NACAA's comments are posted at http://www.4cleanair.org/Documents/NACAACommentsTRStep3final.pdf.

permits rather than providing the necessary flexibility. The association also requested that EPA clarify whether, if a state or local agency with a delegated PSD program already has authority to issue synthetic minor permits, EPA will require the delegated state or local agency to implement the requirements contained in EPA's proposed 40 C.F.R. 52.21(dd). In addition, the association requested that EPA make clear that these requirements do not apply to states and localities with existing authority to issue synthetic minor permits.

EPA also identified other streamlining approaches. Of those options, NACAA recommended that EPA move forward as soon as possible to exclude "empty permits" as a possible means for alleviating the potential burden of Title V permitting for GHG sources.[52] EPA stated that empty permits may occur because the applicability for Title V is in part based on major source status, yet there may not be any applicable requirements that apply. NACAA supported this concept as a streamlining measure that could reduce the resources required to administer the Title V permitting program without sacrificing environmental protection. The association said that EPA can, and should, revise the Title V requirements such that empty permits are not required, and asked that the agency propose specific rule language to this effect for public review and comment.

EPA published the final Step 3 Rule on July 12, 2012, retaining the current GHG permitting thresholds of 100,000 / 75,000 tpy CO_2e.[53] The agency also finalized an approach that will improve the usefulness of PALs for GHG emissions by allowing GHG PALs to be established on a CO_2e basis in addition to the already available mass basis. In addition, EPA revised its regulations to allow a source that emits or has the potential to emit GHGs at levels above 100,000 tons per year CO_2e, but that has emissions of other regulated pollutants at minor source levels, to apply for a GHG PAL while still maintaining its minor source status.

Based on the results of the study, EPA is to propose a rule addressing the permitting obligations of such stationary sources under § 52.21 and § 51.166 of this chapter. The Administrator shall take final action on such a rule no later than April 30, 2016.

GHG Five-Year Study for Potential Step 4 of the Tailoring Rule

The Tailoring Rule requires EPA to conduct a five-year study, to be completed by April 30, 2015, evaluating the status of PSD and Title V applicability to GHG stationary sources and projecting the administrative burdens that remain with respect to the permitting of sources whose GHG emissions are below the thresholds established in Tailoring Rule Steps 2 and 3.[54] The study is to examine permitting authorities' ability to secure resources and hire and train staff; experiences associated with GHG permitting for new types of sources and technologies; and the success of streamlining measures developed by EPA (and adopted by the states) for reducing the permitting burden associated with such stationary sources.[55] Based on the results of the study, EPA is to

[52] EPA specifically requested comment on "whether the EPA can, and should, interpret Title V as not requiring ''empty permits,'' and if so whether state program revisions, approved by the EPA, would, or should, be necessary to exclude such sources from Title V permit requirements." 77 *Federal Register* at 14257.
[53] 77 *Federal Register* 41051.
[54] 40 C.F.R. § 52.22(b)(2)(i).
[55] Id.

complete a rulemaking by April 30, 2016 that addresses another potential phase-in of lower permitting thresholds for GHG permitting.[56]

New Source Performance Standards

Oil and Gas Facilities

On August 23, 2011, EPA proposed NSPS and NESHAP standards for oil and gas facilities.[57] The NSPS covered emissions of volatile organic compounds and sulfur dioxide but not emissions of methane. NACAA submitted comments on November 30, 2011, noting the significant emissions of methane from this sector and recommending that, following finalization of the proposed NSPS and NESHAP, EPA issue a reconsideration that proposes an NSPS for methane.[58] EPA finalized the standards on April 17, 2012.[59] EPA updated the VOC performance standards for storage tanks on August 5, 2013,[60] but the agency has not taken any action to directly regulate methane emissions.

Power Plants and Refineries

On December 30, 2010, EPA published a notice seeking comment on settlements setting dates for proposing and finalizing GHG NSPS for power plants and petroleum refineries.[61] The settlement provides that EPA would propose GHG NSPS for power plants by July 26, 2011, and finalize them by May 26, 2012, and propose GHG NSPS for petroleum refineries by December 10, 2011, and finalize them by November 10, 2012. The schedule for releasing the NSPS was repeatedly pushed back.[62]

EPA proposed a NSPS for new power plants on April 13, 2012.[63] The proposed NSPS only covers CO_2 emissions from new power plants and does not cover modifications or reconstructions. EPA also did not include emissions guidelines for existing power plants, as provided under section 111(d) of the Clean Air Act. EPA proposed that new boilers, integrated gasification combined cycle (IGCC) units and combined cycle units meet a standard of 1,000 pounds of CO_2 per megawatt-hour (lb CO_2/MWhr) gross. This level reflects the emissions level of a natural gas combined cycle (NGCC) turbine.[64] In essence, EPA proposed setting a fuel-neutral standard, requiring coal, oil and natural gas-fired electric generating units (EGUs) to meet the same standard. EPA also proposed to provide affected coal- and pet-coke fired EGUs with an alternative

[56] Id. § 52.22(b)(2)(ii).
[57] 76 *Federal Register* 52738.
[58] Comments are posted at http://www.4cleanair.org/Documents/NACAACommentsOilNaturalGas113011.pdf. The comments also covered a number of other areas besides methane.
[59] 77 *Federal Register* 49490.
[60] See http://www.epa.gov/airquality/oilandgas/actions.html.
[61] 75 *Federal Register* 82392 and 82390, respectively.
[62] The deadline was pushed to September 30, 2011, in an agreement with litigants and then on September 16, 2011, EPA announced another delay but no deadline for action. See http://www.epa.gov/airquality/pdfs/20110613ghgsettlementmod.pdf and http://members.4cleanair.org/rc_files/5258/EPA_Statement_on_GHG_NSPS_Schedule_9-16-2011.pdf.
[63] 77 *Federal Register* 22392.
[64] 77 *Federal Register* 22406 and 22413-22420.

compliance option.[65] For the first ten years of operation, the affected source would be required to comply with a 12-month annual average CO_2 emissions limit based on the best demonstrated performance of a coal-fired facility without carbon capture and sequestration (CCS), technology, which is 1,800 lb CO_2/MWhr (gross). According to EPA, this proposed emission limit can be met by modern coal-fired facilities using supercritical steam conditions, IGCC facilities and pressurized circulating fluidized bed (CFB) boilers. For the remaining 20 years of operation, the affected source would be required to meet a reduced emission limit of no more than 600 lb CO_2/MWhr on a 12-month annual average, such that the weighted average CO_2 emissions rate from the facility over the 30- year time period would be equivalent to the proposed standard of performance of 1,000 lb CO_2/MWhr. EPA also proposed excluding "transitional" units from the NSPS. "Transitional units" are coal-fired power plants that, by April 13, 2012, have received approval for their PSD preconstruction permits that meet PSD requirements (or that have approved PSD permits that expired and are in the process of being extended, if those sources are participating in a Department of Energy CCS funding program), and that commence construction by April 13, 2013.[66]

On June 6, 2012, Las Brisas Energy Center LLC, the developer of a proposed petroleum coke-fired electricity plant in Texas, filed suit challenging several aspects of the rule. Normally, a petitioner can only file suit to contest a final agency action, but Las Brisas argued that the EPA GHG NSPS proposal "imposes a stop-work order" on its project and thus was ripe for review. (New Source Performance Standards apply as soon as they are *proposed*.[67]) The U.S. Court of Appeals for the D.C. Circuit disagreed – on December 13, 2012, it granted EPA's motion to dismiss, stating that "the challenged proposed rule is not final agency action subject to judicial review."[68] This means that industry and others must wait until EPA finalizes the NSPS before they can challenge it in court. Under the Clean Air Act, EPA is supposed to finalize an NSPS within a year after proposal.

EPA's schedules for issuing a GHG NSPS for new power plants and emissions guidelines for existing power plants were clarified when the President announced his Presidential Climate Action Plan on June 25, 2013.[69] As part of the announcement, the President issued a memorandum[70] to the EPA Administrator, directing EPA to take several actions regarding "power plant carbon pollution standards." For *new* power plants, the President directed EPA to issue a revised proposal by September 20, 2013. For *modified, reconstructed and existing* power plants, the President directed EPA to issue a proposal by June 1, 2014, issue final standards by June 1, 2015, and to include in the guidelines requirements that states submit implementation plans required under section 111(d) by no later than June 30, 2016. The memorandum also directs EPA to launch the effort on modified, reconstructed and existing power plants "through direct engagement with States,

[65] 77 *Federal Register* 22406-22406 and 22413-22420.
[66] 77 *Federal Register* 22421.
[67] This is because the section defines "new source" as "any stationary source, the construction or modification of which is commenced after the publication of regulations (**or, if earlier, proposed regulations**) prescribing the standard of performance under this section which will be applicable to such source." (Emphasis supplied.)
[68] *Las Brisas Energy Center, LLC v. EPA* (No 12-1248). The order dismissing the case is posted at http://www.4cleanair.org/Documents/LasBrisasdismissal121312.pdf.
[69] Posted at http://www.whitehouse.gov/sites/default/files/image/president27sclimateactionplan.pdf
[70] Posted at http://members.4cleanair.org/rc_files/5527/Pres_Memo_GHG_emissions_power_plants_06252013.pdf.

as they will play a central role in establishing and implementing standards for existing power plants."

EPA has not indicated when it plans to propose an NSPS for refineries.

Mobile Sources and Fuels

EPA is continuing to move forward with proposing and finalizing regulations to limit GHG emissions from mobile sources. On September 15, 2011, EPA and DOT finalized GHG emissions standards for medium- and heavy-duty engines and vehicles,[71] which NACAA had supported.[72] The new standards apply to model years 2014 through 2018 for combination tractors, heavy-duty pickup trucks and vans and vocational vehicles. On October 15, 2012, EPA and DOT published their joint final rule to extend the national program of harmonized GHG and fuel economy standards for light-duty passenger vehicles to model year 2017 through 2025 passenger vehicles.[73] The final rule includes a set of fleet-wide average CO_2 emissions standards based on CO_2 "emissions footprint curves," whereby each vehicle has a different CO_2 tailpipe emissions compliance target (which increases in stringency each year from 2017 through 2025) based on its footprint value, which is related to the vehicle's size. NACAA supported EPA and DOT's proposed rule on this issue in comments submitted on January 24, 2012 .[74] NACAA highlighted not only the substantial climate, change, fuel savings and energy security benefits of the rule, but also the very important co-benefits in the form of reductions in criteria and toxic air pollutants, among others. The association urged that EPA and DOT ensure that the full measure of envisioned GHG emissions reductions and improvement in fuel economy is achieved. The final rule implements the continuing partnership among EPA, DOT and California in harmonizing GHG emissions regulations for mobile sources.[75] Also related to this, California adopted its Advanced Clean Car Program on January 27, 2012.[76] On January 9, 2013, EPA granted California's request for a waiver of federal preemption under Clean Air Act section 209(b) to enforce these regulations.[77] NACAA urged EPA to grant California's waiver request in testimony provided at an EPA hearing on September 19, 2012.[78]

On June 14, 2012, EPA responded to several petitions from various organizations seeking EPA action on GHG emissions from three mobile source engine and vehicle categories. Petitioners requested (in a December 5, 2007 petition) that the agency 1) make a finding that GHG emissions from aircraft engines "may reasonably be anticipated to endanger public health and welfare" and 2)

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[71] 76 *Federal Register* 57106.
[72] Comments are posted at http://www.4cleanair.org/Documents/NACAAFinalCommentsonEPANHTSAProposedHDGHGStds013111.pdf.
[73] 77 *Federal Register* 62624.
[74] Comments are posted at http://www.4cleanair.org/Documents/FINALNACAACOMMENTSon2017GHGCAFEStds012412.pdf.
[75] On January 24, 2011, EPA, DOT and California announced they would work together in setting GHG emissions standards and CAFE standards for MY 2017-2025 cars and light-duty trucks. Announcement is posted at http://yosemite.epa.gov/opa/admpress.nsf/d0cf6618525a9efb85257359003fb69d/6f34c8d6f2b11e5885257822006f60c0!OpenDocument.
[76] http://www.arb.ca.gov/msprog/consumer_info/advanced_clean_cars/consumer_acc.htm .
[77] 78 *Federal Register* 2112.
[78] http://www.4cleanair.org/Documents/NACAATestimonyonCARBACCProgWaiverRequest091912.pdf

promulgate standards for GHG emissions from aircraft engines. Petitioners also sought to compel EPA to conduct rulemaking regarding 1) carbon dioxide, nitrous oxide and black carbon emissions from marine engines (October 3, 2007 petition) and 2) carbon dioxide and other GHG emissions from nonroad vehicles and engines (January 29, 2008 petition). In its responses, EPA indicated that the Administrator plans to conduct a proceeding regarding whether aircraft engine GHG emissions cause or contribute to air pollution which may reasonably be anticipated to endanger public health or welfare, pursuant to Clean Air Act section 231. EPA also indicated that it will not take final action on these issues prior to going through notice and comment and that the agency "is not prepared at this time to initiate the rulemaking to promulgate standards requested by the Petitioners" but intends to review the issues following its aircraft GHG emissions proceeding. With respect to marine engines and nonroad vehicles and engines, EPA stated in a separate response that it is "not prepared at this time to initiate the rulemaking requested by the [Petitioners]. However, EPA plans to continue reviewing this issue in the future."

Timeline of Key EPA GHG Regulatory Actions

1998

April 10, 1998 – EPA General Counsel Jonathan Z. Cannon prepares a legal opinion concluding that carbon dioxide (CO_2) "emissions are within the scope of EPA's authority to regulate."

1999

October 20, 1999 – The International Center for Technology Assessment and 18 other organizations file a rulemaking petition asking EPA to regulate greenhouse gas (GHG) emissions from new motor vehicles under §202 of the Clean Air Act.

2001

January 23, 2001 – EPA publishes notice seeking comment on the petition. 66 *Federal Register* 7486.

2003

September 8, 2003 – EPA publishes denial of petition for rulemaking. 68 *Federal Register* 52922.

2005

July 15, 2005 – U.S. Court of Appeals for D.C. Circuit denies petition for review. *Massachusetts* v. *EPA*, 415 F.3d 50 (D.C. Cir. 2005).

2007

April 2, 2007 – Supreme Court rules that GHGs fit the definition of "air pollutant" in the Clean Air Act and thus EPA must either make a finding that GHG emissions endanger public health and welfare or declare that scientific uncertainty is so profound that it is unable to make such a finding. *Massachusetts v. EPA*, 549 U.S. 497 (2007).

2008

March 6, 2008 – EPA denies California's request for a preemption waiver for California GHG emissions standards for new motor vehicles. 73 *Federal Register* 12156.

July 30, 2008 – EPA issues Advance Notice of Proposed Rulemaking on Regulating GHG Emissions Under the Clean Air Act (GHG ANPR). 73 *Federal Register* 44354.

- NACAA comments: http://www.4cleanair.org/Documents/NACAACommentsonGHGANPRMFINALletterhead.pdf

2009

July 8, 2009 – EPA withdraws March 6, 2008 denial of California waiver and grants California waiver of preemption for GHG emissions standards for model year (MY) 2009 and later new motor vehicles. 74 *Federal Register* 32744.

- NACAA comments: http://www.4cleanair.org/Documents/CAWaiverNACAAWrittenCommentsonEPAReviewofDenial040609FINAL.pdf

October 30, 2009 – EPA publishes final rule requiring reporting by suppliers of fossil fuels or industrial GHGs, manufacturers of vehicles and engines, and facilities that emit 25,000 metric tons or more per year of GHG to submit annual reports to EPA (Mandatory GHG Reporting Rule). 74 *Federal Register* 56260.

- NACAA comments: http://www.4cleanair.org/Documents/CAWaiverCommentsFinal61507.pdf

December 15, 2009 – EPA publishes final finding that GHG emissions from new motor vehicles and new motor vehicle engines contribute to air pollution that endangers public health and welfare (Endangerment Finding). 74 *Federal Register* 66496.

- NACAA comments: http://www.4cleanair.org/Documents/NACAAEndangermentCommentsFINALlthd.pdf

2010

April 2, 2010 – EPA finalizes policy interpretation of when the Prevention of Significant Deterioration (PSD) and Title V permit programs become applicable to GHGs (Triggering Rule). 75 *Federal Register* 17004.

- NACAA comments: http://www.4cleanair.org/Documents/JohnsonMemoNACAACommentsFINAL120709.pdf

May 7, 2010 – EPA and the U.S. Department of Transportation (DOT) issue final GHG emissions standards and Corporate Average Fuel Economy (CAFE) standards for new light-duty vehicles and engines for MY 2012-2016. 75 *Federal Register* 25324.

- NACAA comments: http://www.4cleanair.org/Documents/NACAACommentsonProposedVehicleGHGCAFEStdsFinal112409.pdf

June 3, 2010 – EPA finalizes rule that raises the GHG emissions threshold for determining when a source is covered by PSD and Title V permit programs (Tailoring Rule). 75 *Federal Register* 31514.

- NACAA comments: http://members.4cleanair.org/rc_files/4821/Tailoring%20Rule-NACAA%20Comments-FINAL-122809.pdf

October 2010 – EPA releases series of white papers that provides technical information that "may be useful in a Best Available Control Technology (BACT) analysis, but they do not define BACT

for each sector." The sectors covered include power plants, large industrial/commercial/institutional boilers, pulp and paper facilities, cement plants, the iron and steel industry, refineries and nitric acid plants.

November 2010 – EPA issues PSD and Title V Permitting Guidance for GHGs (updated March 2011).

November 30, 2010 – EPA and DOT jointly propose GHG emissions and CAFE standards for new medium- and heavy-duty vehicles and vehicle engines. 75 *Federal Register* 74152.

- NACAA comments: http://www.4cleanair.org/Documents/NACAAFinalCommentsonEPANHTSAProposedHDGHGStds013111.pdf

December 13, 2010 – EPA issues State Implementation Plan (SIP) Call to 13 states to revise their SIPs so that they apply PSD permitting requirements to GHG emissions. 75 *Federal Register* 77698.

December 30, 2010 – EPA publishes notice narrowing SIP approval for states with PSD (24) and Title V (33) emissions limits for GHGs above Tailoring Rule threshold. 75 *Federal Register* 82536 and 82254.

December 30, 2010 – EPA establishment of Federal Implementation Plan for seven states that have not corrected their SIPs to apply PSD program to GHG emissions sources. 75 *Federal Register* 82246. (Finding of failure to submit is at 75 *Federal Register* 81874).

December 30, 2010 – EPA publishes notice seeking comment on settlements setting dates for proposing and finalizing GHG New Source Performance Standards for power plants and petroleum refineries. 75 *Federal Register* 82392 and 82390, respectively.

2011

January 2, 2011 – GHGs become a "regulated pollutant" for purposes of PSD and Title V permit programs. Large industrial facilities that must already obtain Clean Air Act permits for non-GHGs must also include GHG requirements in these permits if they are newly constructed and have the potential to emit 75,000 tons per year of carbon dioxide equivalent (CO_2e) or more or if they make changes at the facility that increase GHG emissions by that amount

January 24, 2011 – EPA, DOT and California announce they will work together in setting GHG emissions standards and CAFE standards for MY 2017-2025 cars and light-duty trucks.

March 14, 2011 – EPA issues guidance for determining BACT for reducing CO_2 emissions from bioenergy production.

March 21, 2011 – EPA publishes notice of proposal to defer for three years the application of PSD and Title V provisions to biogenic CO_2 emissions from bioenergy. 76 *Federal Register* 15249.

June 13, 2011 – EPA announces it has reached agreement with litigants to extend the deadline for proposing GHG NSPS for power plants to September 30, 2011.

July 1, 2011 – Phase II of GHG permitting begins. All new facilities emitting GHGs in excess of 100,000 tons of per year (tpy) CO_2e and facilities making changes that would increase GHG emissions by at least 75,000 tpy CO_2e, and that also exceed 100/250 tpy year of GHGs on a mass basis, will be required to obtain permits that address GHG emissions. Operating permits will be needed by all sources that emit at least 100,000 tons of GHG per year on a CO_2e basis.

July 20, 2011 – EPA issues rule deferring for three years the application of PSD and Title V provisions to biogenic CO_2 emissions from bioenergy. 76 *Federal Register* 43490.

September 15, 2011 – EPA and DOT finalize GHG emissions standards for medium- and heavy-duty engines and vehicles. 76 *Federal Register* 57106.

September 16, 2011 – EPA announces another delay in the GHG NSPS rulemaking for power plants without specifying any deadlines for action.

November 8, 2011 – EPA sends a proposal to the Office of Management and Budget (OMB) that would set GHG NSPS for new power plants (under section 111(b)) but not existing power plants (under section 111(d)).

December 1, 2011 – EPA and DOT propose to extend the national program of harmonized GHG and fuel economy standards to model year 2017 through 2025 passenger vehicles. 76 *Federal Register* 74854.

- NACAA comments: http://www.4cleanair.org/Documents/FINALNACAACOMMENTSon2017GHGCAFEStds012412.pdf

2012

March 8, 2012 – EPA proposes Step 3 in EPA's GHG Tailoring Rule. 77 *Federal Register* 14226.

- NACAA comments: http://members.4cleanair.org/rc_files/5379/NACAACommentsTRStep3.final.pdf

April 13, 2012 – EPA proposes GHG NSPS for new power plants. 77 *Federal Register* 22392.

July 12, 2012 – EPA finalizes Step 3 in EPA's GHG Tailoring Rule. 77 *Federal Register* 41051.

September 14, 2012 – EPA Clean Air Act Advisory Committee (CAAAC) publishes report presenting potential GHG permit streamlining options and observations developed by its GHG Permit Streamlining Workgroup.

October 15, 2012 – EPA and DOT publish their joint final rule to extend the national program of harmonized GHG and fuel economy standards for light-duty passenger vehicles to model year 2017 through 2025 passenger vehicles. 77 *Federal Register* 62624.

- NACAA comments: http://www.4cleanair.org/Documents/FINALNACAACOMMENTSon2017GHGCAFEStds012412.pdf

2013

January 9, 2013 – EPA grants California's request for a waiver of federal preemption under Clean Air Act section 209(b) to enforce its Advanced Clean Car Program. 78 *Federal Register* 2112.

- NACAA comments: http://www.4cleanair.org/Documents/NACAATestimonyonCARBACCProgWaiverRequest091912.pdf

June 25, 2013 – The President releases his Presidential Climate Action Plan and memo to EPA regarding issuance of GHG emissions standards for power plants.