

US EPA ARCHIVE DOCUMENT

**TESTIMONY OF
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BEFORE THE
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS
U.S. SENATE**

September 23, 2008

Madam Chair and Members of the Committee, thank you for the opportunity to discuss with you today EPA's Advance Notice of Proposed Rulemaking concerning the potential for regulation of greenhouse gases (GHGs) under the Clean Air Act.

In considering how best to respond to the Supreme Court's decision in *Massachusetts v. EPA*, EPA Administrator Stephen L. Johnson in March decided to issue an Advance Notice of Proposed Rulemaking (ANPR) that includes examining the ways in which regulation of GHG emissions under one provision of the Clean Air Act interacts with, and could lead to, regulation of GHG emissions under other provisions of the Act. The Administrator believes that the ANPR approach will enable EPA to give appropriate care and attention to the complexities involved, and that it will be critically important to understanding and addressing the implications of regulating GHGs under the Act in deciding how to proceed, in the event the Administrator makes an endangerment finding.

The ANPR was signed by the Administrator on July 11 and published in the Federal Register on July 30. The ANPR is accompanied by five technical support

documents and other supporting materials placed in the docket. Because of the breadth of the issues covered, the public comment period is 120 days long, until November 28.

Among other things, the ANPR:

- Reviews and summarizes climate change science as relevant to determining whether GHG emissions from motor vehicles meet the endangerment test of Clean Air Act section 202, the provision at issue in *Massachusetts v. EPA*.
- Examines the implications of issuing an endangerment finding and regulation under one section of the Clean Air Act for the regulation of mobile and stationary sources under other sections of the Clean Air Act, in light of the interconnections among various provisions of the Act.
- Examines Clean Air Act authorities and the various policy, legal and technical issues involved with their potential application to GHGs, as well as possible emission reduction technologies and strategies.
- Seeks public comment on the issues raised, and solicits technical information and data to provide a better basis for assessing the potential application of the Clean Air Act to GHGs.

The ANPR begins with a preface by the Administrator and statements by the heads of a number of other federal departments and agencies raising serious concerns about the suitability of the Clean Air Act for addressing climate change. The ANPR does not propose an endangerment finding under Clean Air Act section 202 or any similar statutory provisions contained in the Clean Air Act. It does not make judgments

or recommendations about whether or how to use various Clean Air Act authorities. Instead it explains and discusses the potential ways in which the Clean Air Act could -- or in certain defined circumstances, would -- apply to other types of mobile and stationary sources of GHGs, should the Agency ultimately make a positive endangerment finding for GHG under section 202 or other Clean Air Act provisions. For each CAA authority potentially applicable to GHGs, the ANPR requests public comment.

To put the ANPR in a broader context, President Bush has pointed out that climate change is a serious global challenge. Since 2001 the Administration has devoted almost \$45 billion in resources to addressing climate related science, technology, observation, international assistance and tax incentives and has implemented mandatory programs in some of the most significant sectors that will potentially prevent 5 to 6 billion metric tons of GHG emissions through 2030. The Administration is implementing over 60 federal programs that are directed at developing and deploying cleaner, more efficient energy technologies, conservation, biological sequestration, geological sequestration, and adaptation. Internationally, the President launched the Major Economies Process, which brings together the world's largest users of energy and largest producers of GHG emissions, including both developed and developing nations, to develop a new approach that can slow, stop, and eventually reverse the growth of GHG emissions. He also launched the now successful Asia-Pacific Partnership on Clean Development and Climate Change, which is undertaking more than 100 actions to address GHG emissions and energy security opportunities in 8 key sectors and includes active participation by India and China.

Through his “Twenty in Ten” initiative, the President last year committed the United States to reducing gasoline demand and greenhouse gas emissions from motor vehicles and fuels as part of a national approach for addressing the nation’s dependence on petroleum and global climate change. Congress answered the President’s call to increase vehicle fuel economy standards and the use of renewable fuels through enactment of Titles I and II of the Energy Independence and Security Act (EISA). Work is now proceeding at EPA and other agencies to implement the new law.

In the *Massachusetts* case, the Supreme Court held that the Administrator of EPA must decide whether or not greenhouse gas emissions from motor vehicles cause or contribute to air pollution that is reasonably anticipated to endanger public health or welfare, or explain why “scientific uncertainty is so profound that it precludes EPA from making a reasoned judgment as to whether greenhouse gases contribute to global warming[.]” If the Administrator ultimately finds that motor vehicle GHG emissions meet that two-part “endangerment” test, section 202(a) of the Clean Air Act requires him to set motor vehicle GHG emissions standards.

The ANPR summarizes the latest available science relevant to determining whether that endangerment test has been met and discusses the statutory terms and legislative history of the test itself. It should be noted that the Supreme Court did not evaluate on the merits the Agency’s prior scientific record and analysis in deciding the *Massachusetts* case. The ANPR also addresses the broader ramifications of making an endangerment finding. Specifically, it addresses and seeks public comment and

information on a range of mobile and stationary source issues that could relate to and arise from a decision to regulate GHG emissions under the authority of the Clean Air Act.

In developing a response to the Supreme Court's decision, EPA has come to fully appreciate that Clean Air Act regulation of GHGs would not stop at vehicle standards issued under section 202(a) of the Act. Recognizing similarities in statutory language as well as regulatory "triggers" embedded in the Act, we evaluated the broader ramifications of the Court's decision for potential Clean Air Act regulation. The review made clear that regulation of mobile or other sources of GHGs under the Clean Air Act could potentially affect many stationary sources, going well beyond the typical power plant or factory to include large commercial facilities, apartment buildings and other entities.

The Clean Air Act, as enacted in 1970 and substantially amended in 1977 and 1990, provides broad authority to address air pollutants that are emitted by mobile and stationary sources. Cars, trucks, construction equipment, airplanes, ships as well as a broad range of electric generation, industrial, commercial and other facilities may be subject to various Clean Air Act programs.

As the ANPR describes in detail, there are several provisions in the Clean Air Act that contain endangerment language similar to that found in section 202(a). A finding of endangerment for GHGs under one provision of the Act could have ramifications for findings of endangerment under other provisions of the Act. In addition, promulgation of GHG emissions standards for vehicles or stationary sources under most Clean Air Act

provisions could significantly expand the scope and applicability of preconstruction permit requirements under the Prevention of Significant Deterioration program. Another interconnection, highlighted in the ANPR, is how defining a term such as “air pollutant” in one part of the Act could also affect other provisions using the same term.

Application of the Clean Air Act’s integrated and interrelated authorities has resulted in our nation making substantial gains in the reduction of criteria pollutants, like smog and particulate matter, as well as air toxics. However, using existing Clean Air Act provisions to address GHGs, which have long atmospheric lifetimes and tend to be well-mixed in the global atmosphere, presents different challenges. Therefore, it is prudent to fully consider how existing Clean Air Act authorities would or could work together if an endangerment finding were made under any provision of the Act and any subsequent GHG controls were established under the authority of the Act.

Several pending CAA actions are also affected by the potential implications of the Court’s decision. Over the past year, EPA has received seven petitions from states, localities, environmental groups and other nongovernmental organizations to set emission standards for other types of mobile sources, including non-road vehicles such as construction and farm equipment, ships and aircraft. The ANPR summarizes and seeks comments on these petitions. The ANPR also discusses issues concerning establishing new source performance standards (NSPS) for GHGs emitted by several source categories that have been the subject of recent EPA NSPS rulemakings. For example, in response to a remand by a federal court, EPA must decide whether the NSPS for utility,

commercial and industrial boilers should be expanded to cover GHGs. Stakeholders have challenged EPA's decision not to include GHG standards in recent revisions to the NSPS for petroleum refineries. Legal challenges have also been brought seeking controls for GHG emissions in preconstruction permits for several coal-fired power plants.

In light of the broad array of pending and potential Clean Air Act actions concerning GHGs, the Administrator decided to inform and consult with the public about the Agency's work in response to the Supreme Court's decision, including issues and questions related to endangerment and vehicle standards, and our examination of the potential effects of using various authorities under the Clean Air Act. Thus, the ANPR provides the public with a timely opportunity to help shape an approach for potentially addressing GHG emissions under the Clean Air Act.

In light of Congressional passage of numerous mandatory and incentive-based policies that will prevent billions of tons of GHG emissions, such as the new national renewable fuel and vehicle fuel economy mandates, as well as any future consideration of other legislation that might affect GHGs, the ANPR's description of Clean Air Act programs is relevant to evaluating potential overlap with existing, new and proposed programs being considered by Congress. In addition, the ANPR discusses issues and approaches for designing GHG control measures that may be useful in developing either regulations or legislation to reduce GHG emissions. The ANPR further notes that the Clean Air Act is not the only tool available for addressing GHG emissions at the Federal level and that actions taken through Clean Air Act regulations are part of broader

regulatory, policy, and programmatic actions to address GHG emissions taken by EPA, other Federal departments and agencies, state and local governments, the private sector, and the international community.

The ANPR explains the basic terms of the Clean Air Act provisions that could be applied to GHGs, but as it makes clear, individual provisions of the Act can be complex. There are also several decades' worth of Clean Air Act interpretations embodied in regulatory activity and various court decisions. A full explanation of these provisions and their historical interpretation could easily fill a text book. For today, I would like to provide you with a general overview of several Clean Air Act provisions that might be applied to GHG emissions and that are further discussed in the ANPR. For each of those provisions, I will briefly describe:

- the finding or action that could lead to regulation under the section,
- the types of sources potentially regulated,
- the factors EPA could consider in standard-setting, and
- the flexibility that EPA could provide sources (e.g., whether emissions trading would be permissible).

But I must first offer an important caveat: Just as the ANPR makes no recommendations regarding application of specific Clean Air Act authorities to GHGs, the following discussion of authorities should not be interpreted to mean that EPA has reached any conclusions regarding whether particular authorities would be mandatory or discretionary, or suitable or unsuitable, for use in reducing GHG emissions, or whether

EPA has fully evaluated the legal viability of any particular approach. Further, this testimony does not present conclusions on issues raised in the ANPR, which is still out for public comment. Many stakeholders have raised significant issues and ideas with regard to the potential application of the Clean Air Act to GHG emissions. EPA will continue to evaluate the various Clean Air Act authorities in light of available information and public comments on the ANPR.

Stationary Source Authorities

The Clean Air Act includes a number of stationary source authorities that together have successfully reduced air pollution at the same time the nation's economy has grown. These authorities provide three main pathways for potentially regulating stationary sources of GHG emissions. They include, in their order of appearance in the Act, national ambient air quality standards (NAAQS) and state implementation plans (SIPs) for achieving those standards¹; performance standards for new and existing stationary sources; and hazardous air pollutant standards for stationary sources. I will describe each of these Clean Air Act programs in turn, followed by a discussion of issues related to the Prevention of Significant Deterioration (PSD) and Title V permitting programs.

National ambient air quality standards: Section 108 of the Act requires EPA to list pollutants: 1) which, in the Administrator's judgment, cause or contribute to air pollution which may reasonably be anticipated to endanger public health or welfare; 2) which result from numerous or diverse mobile or stationary sources; and 3) for which the Administrator plans to issue air quality criteria. For listed pollutants (so-called "criteria

¹ SIPs typically contain measures to reduce emissions from mobile sources as well as stationary sources.

pollutants”), section 109 of the Act requires that EPA set and periodically revise national primary and secondary ambient air quality standards. Primary standards are standards which, in the judgment of the Administrator, are requisite to protect public health with an adequate margin of safety. Secondary standards are standards judged by the Administrator to be requisite to protect the public welfare from any known or anticipated adverse effects. Under established Supreme Court precedent, both primary and secondary standards are set without consideration of costs or ease of implementation.

Once standards are established under section 109, section 110 of the Act sets forth detailed requirements for state plans to attain and maintain the primary and secondary standards. Costs and feasibility may be considered in the development of these state plans and the federal rules that aid in achieving air quality standards. Additional requirements for nonattainment areas are contained in Part D of Title I of the Act.

An important issue noted in the ANPR is whether making an endangerment finding under section 202 or other sections of the Act would compel the Agency to list GHGs under section 108 in view of the other listing criteria. The ANPR evaluates and seeks comment on the extent of the Agency’s latitude in deciding whether or not to list a new pollutant under section 108 for the purpose of setting a NAAQS under section 109. In that discussion, the ANPR notes that one of the three criteria for listing NAAQS pollutants “could provide EPA discretion to decide whether to list those pollutants under section 108 for purposes of regulating them via the NAAQS.”

Another issue to consider is the length of time it would take to develop a NAAQS and to implement controls on GHG emission sources through the SIP process. The Clean Air Act provides a statutory framework for the designation of areas (either attainment, nonattainment or unclassifiable) as well as statutory deadlines for the submission of state implementation plans and deadlines for attainment of various standards. Based on past experience, we might expect that it would take a decade or more to complete the NAAQS process: several years to list the pollutant(s) under section 108 and promulgate a NAAQS for the pollutant(s); two years to make attainment and nonattainment area designations; three additional years for states to submit to EPA state plans and rules to implement the standards; and typically additional time for regulated sources to comply. Litigation has at least once contributed to delaying implementation of a NAAQS.

It is also important to consider that all NAAQS are subject to a statutory review period. Every five years, the Administrator is required to review and determine, based on the latest scientific information, and with consultation and consideration of the recommendations of the Clean Air Act Scientific Advisory Committee, whether to revise existing NAAQS. Revision of a NAAQS results in another round of area designations and state plans.

More fundamental are the questions raised by the potential application of NAAQS and SIP requirements to global air pollutants like GHGs. Regardless of where in the world they are emitted, GHGs like CO₂ are long-lived, and thus mix and distribute in the atmosphere in a way that results in relatively uniform concentrations around the globe.

Under a hypothetical NAAQS for the longer-lived GHGs, depending on the level of any standard based on concentration, the entire country would be either in attainment or in nonattainment with the standard. If a NAAQS for GHGs were employed, as there would be no basis for differentiation among the states based on atmospheric concentrations, EPA might have to consider some sort of burden-sharing allocation of responsibility among the states with respect to their relative contribution to attainment of a national standard. In either case, EPA's approach to addressing GHGs would necessarily require new methods of implementing existing CAA provisions.

If the country were in attainment, states would be required to submit enforceable state plans to maintain the standard and to apply the prevention of significant deterioration (PSD) program to the GHGs covered by the NAAQS. State plans could include limits on stationary sources and mobile source measures not preempted by the Act. As explained in more detail below, PSD requires new source permitting, best available control technology, and emission limits that avoid significant degradation of air quality.

If the country were in nonattainment, states would be required to submit plans that demonstrate attainment of the primary NAAQS within a 10-year maximum time frame. Because controls implemented by a single state, or even by the entire U.S., could not alone ensure stabilization or reductions in global GHG concentrations, this requirement would be problematic. This is true despite the fact that there may be some flexibility for some nonattainment requirements. Required elements of a nonattainment plan include a

reasonable further progress demonstration, reasonably available control measures, transportation conformity, and nonattainment new source review for new and modified major sources. Each of these elements can impose substantial duties on states and localities.

Under either an attainment or nonattainment scenario, state plans could also be required under section 110(a) (2) (D) to prohibit significant contribution to nonattainment or interference with maintenance of the NAAQS in other states. EPA has not determined whether or not such provisions would necessarily be “triggered” or applicable to a GHG NAAQS. However, these provisions have been part of past NAAQS implementation. EPA believes section 110 allows some form of emission trading to help achieve its objectives. However, the recent decision of the D.C. Circuit vacating the Clean Air Interstate Rule (CAIR), if allowed to stand, would restrict interstate emission trading in part or in whole under section 110. This same authority was used in promulgating the 1999 NO_x SIP Call rule.

New source performance standards (NSPS): Section 111(b) of the Act requires EPA to establish emissions standards for any category of new and modified stationary sources that the Administrator, in his judgment, finds “causes, or contributes significantly to, air pollution which may reasonably be anticipated to endanger public health or welfare.” EPA has previously made endangerment findings for more than 60 source categories that are now subject to more than 70 NSPS. An endangerment finding would be a prerequisite for listing additional source categories for NSPS.

NSPS for new and modified sources can be issued regardless of whether there is a NAAQS for the pollutant being regulated. NSPS emission limits are to reflect “the best system of emission reduction,” taking into account cost and any non-air-quality health and environment impacts and energy requirements. EPA has significant discretion in selecting the categories and sizes of facilities to be covered and the level of the standards to be set. Emissions limits can be written for equipment within a facility or for an entire facility. EPA believes section 111 allows some form of emissions trading among facilities.

Section 111(d) calls for states to issue performance standards for existing sources in the same categories for which EPA regulates new sources, but only when the pollutant in question is neither listed as a criteria pollutant to be regulated through a NAAQS under section 109, nor regulated from the source category under section 112. Historically, EPA has issued model standards for existing sources by rule that could then be adopted by states. Altogether, section 111 provisions for new and modified and existing sources may allow significant flexibility in regulation beyond that available under other Clean Air Act provisions.

Section 111 also requires EPA to review and, if appropriate revise, existing NSPS every eight years unless the Administrator determines that “such review is not appropriate in light of readily available information on the efficacy of such standard.” EPA has reviewed or is currently reviewing NSPS for a number of source categories, and

in the context of some of those reviews, commenters have urged the Agency to add GHG limits to the section 111 standards.

Standards for hazardous air pollutants: Section 112 provides for regulation of hazardous air pollutants from stationary sources. Congress initially listed more than 180 hazardous air pollutants in the statute, but provided a mechanism whereby EPA may add a pollutant which is “known to cause or may reasonably be anticipated to cause ... adverse effects to human health or adverse environmental effects.” Generally, EPA may not add to the list of hazardous air pollutants under section 112 any air pollutant that has been listed as a NAAQS pollutant under section 108. If EPA lists a pollutant under section 112, the Agency must set technology-based “maximum achievable control technology” (MACT) standards for all categories of major sources of the listed pollutant. Eight years after a MACT standard is set, EPA is required to consider whether to set tighter MACT standards or, if needed to protect health and the environment, residual risk standards. Section 112 also authorizes EPA to address smaller sources of listed pollutants through potentially less stringent emissions limits.

Under section 112, major sources are defined as those that have the potential to emit 10 tons per year of any one hazardous air pollutant or 25 tons per year of multiple hazardous air pollutants. These low thresholds reflect the fact that these authorities were originally established by Congress for regulation of toxic air pollutants which are typically emitted and can contribute to adverse effects at relatively low volumes. Since CO₂ is typically emitted in much higher volumes than currently listed hazardous air

pollutants (or even NAAQS pollutants), application of these thresholds to GHG emission sources could result in a massive increase in the number of sources subject to section 112 standards, and could extend the program to schools, hospitals, apartment buildings, universities or other similar institutions.

Unlike NSPS, section 112 establishes minimum stringency requirements for MACT standards based on levels of performance achieved by similar facilities, restricting EPA's ability to consider cost. EPA has interpreted section 112 to allow emissions averaging within a source, but not to allow emissions trading among different major sources. Pollutants that are regulated under section 112 are not subject to preconstruction review under the prevention of significant deterioration (PSD) program, but major sources of HAPs are subject to new source MACT requirements under section 112 .

Permitting: Once EPA controls a GHG under any section of the Clean Air Act -- except for sections 112 and 211(o) -- new or modified major stationary sources of that pollutant would become subject to the requirements of the PSD program.

As a general matter, new major stationary sources and modifications at existing major stationary sources constructed in attainment areas must undergo the PSD permitting process and install best available control technology for each pollutant subject to regulation under Act. These requirements apply regardless of whether a NAAQS for the pollutant exists. For PSD purposes, major stationary sources are those with the potential to emit 100 tons per year of a regulated air pollutant in the case of certain

statutorily-listed source categories, and 250 tons per year in the case of all other source categories. New large schools, nursing homes, and hospitals, universities or other similar institutions could be considered a “major source” under this section of the Clean Air Act, although states could exempt nonprofit educational and health facilities. For modifications, only those that increase emissions above a tonnage threshold established by EPA for each regulated pollutant through rulemaking triggers PSD. Until EPA establishes this so-called “significance” level, however, any increase in a regulated pollutant at a major stationary source undergoing a modification would trigger PSD permitting.

As noted previously, PSD sources are required to install best available control technology (BACT). BACT must be at least as stringent as any applicable NSPS, and is to reflect the maximum degree of emissions reduction achievable for such a facility, taking into account energy, environment and economic impacts and other costs.

Controlling GHG emissions under any section of the Clean Air Act could significantly increase the number of stationary sources subject to PSD permitting, unless actions can be taken to prevent that outcome (a question explored in the ANPR and explained more fully below). Because CO₂ is typically emitted in larger quantities than criteria and other traditional air pollutants from combustion sources, facilities not previously subject to Clean Air Act permitting -- such as large commercial and residential buildings heated by natural gas boilers -- could qualify as major stationary sources for PSD purposes under the statutory thresholds. In addition, some small

industrial sources not now covered by PSD could be covered due to their GHG emissions.

Under existing major source thresholds, we estimate that if CO₂ became a regulated pollutant, the number of PSD permits issued annually nationwide could rise by more than a factor of ten (i.e., more than 2000-3000 permits a year), unless action were taken to limit the scope of the PSD program as described below. Such estimates are subject to significant uncertainty. At present, we do not have comprehensive information on GHG emissions from the many categories of stationary sources of such emissions; instead we have relied on available information and general engineering estimates.

As discussed in the ANPR, such a broadening of the PSD programs could pose significant implementation issues for covered facilities (particularly newly covered facilities) and permitting agencies. In view of the very substantial increase in administrative burden that might otherwise occur, we are seeking comment on whether, for GHGs, the programs could be limited by rule to larger sources, permanently or temporarily, based on legal theories explained in the ANPR, or alternatively, whether legislation on GHG major source thresholds might be needed. In connection with the thresholds issue, the ANPR requests comments and information to support selection of appropriate levels. Also, the ANPR requests comment on other ways to limit the number of major sources through methods involving sources' "potential to emit." In addition, the ANPR requests comment on concepts for streamlining implementation of the PSD

program for smaller sources, such as guidance on general permits or source definitions for BACT determinations, and model permits for use by permitting agencies.

Similar issues arise for the Title V operating permits program, which requires covered stationary sources to have an operating permit that lists all of the source's applicable requirements under the Act, and report and certify its compliance status. Because Title V applies to existing as well as new and modified sources, and because it applies to sources that have the potential to emit more than 100 tons per year and other specified types of CAA-regulated sources, Title V requirements extend to more sources than PSD. The ANPR notes that most of the approaches for attempting to limit the numbers of sources subject to PSD, and for streamlining compliance, could also be used for Title V, and requests comment on using those approaches for Title V, as well as other approaches specific to Title V.

Mobile Source and Transportation Fuel Authorities

Title II of the Clean Air Act provides extensive authority for addressing emissions from the transportation sector in a comprehensive way, with substantial flexibility in considering cost, technological feasibility, and lead time. Under Title II, EPA has the authority to address all mobile sources to develop an approach to regulation that covers both engines and fuels, taking into account the unique aspects of each category, including passenger vehicles, trucks and nonroad vehicles. As a result, EPA has used Title II authorities to achieve deep emission reductions in such pollutants as lead, hydrocarbons, nitrogen oxides, particulate matter, and carbon monoxide from all categories of motor

vehicles. The Title II mobile source authorities work in tandem with the Act's stationary source authorities to provide national emissions reductions that states use in their plans to attain and maintain the NAAQS and otherwise to protect public health and the environment from air pollution. The ANPR discusses how Title II authorities and existing mobile source emission control programs might be utilized to address mobile source GHG emissions.

Section 202(a), the section at issue in the *Massachusetts* case, authorizes EPA to set emissions standards for new motor vehicles or new motor vehicle engines. This provision states that “the Administrator shall by regulation prescribe ... standards applicable to the emission of any air pollutant from any class or classes of new motor vehicles ... which in his judgment cause, or contribute to, air pollution which may reasonably be anticipated to endanger public health or welfare.” Section 202(a) covers all vehicles commonly described as on-highway or on-road vehicles, including passenger cars, light trucks, heavy-duty trucks, buses and motorcycles. Section 202(a) emissions standards only apply to new vehicles and engines, although EPA does have authority to set requirements for rebuilding practices of heavy-duty vehicles, including emission standards.

In setting standards under section 202(a), EPA may consider the need for emissions standards, technological feasibility and other factors such as cost, lead time, safety and other impacts on consumers, and energy impacts. Emission standards may be technology forcing where determined to be appropriate, so long as they take effect “after

such period as the Administrator finds necessary for the development and application of the requisite technology, giving appropriate consideration to the cost of compliance within such period.” In addition, the ANPR notes that Title II does not restrict EPA to specific timeframes for action. As discussed in the ANPR, if circumstances warrant, EPA could set longer-term standards and promote technological advances by basing standards on the performance of technologies not yet available but which are projected to be available at the time the standard takes effect. EPA also has discretion to establish standards that allow the use of averaging, banking and trading of emission credits, which allows EPA to set standards that achieve greater emission reductions while providing flexibility to manufacturers in meeting the standards.

In this context, it is important to note that in EISA, Congress called on the Department of Transportation to tighten vehicle fuel economy standards, which will achieve significant GHG emission reductions. The Department of Transportation, in consultation with EPA, has authority to set Corporate Average Fuel Economy Standards under the Energy Policy and Conservation Act, as amended by EISA. In light of this, EPA specifically invited comment in the ANPR on how EPA could best implement its independent obligations under the Clean Air Act, in keeping with the Supreme Court’s observation in the *Massachusetts* decision that “there is no reason to think the two agencies cannot both administer their obligations yet avoid inconsistencies.”

Other Clean Air Act Title II provisions provide EPA with authority for emission standards for nonroad engines and vehicles (section 213), aircraft (section 231), and fuels

(section 211). Each of these provisions (with the exception of section 211(o)) contains a variation of the “endangerment” test found elsewhere in the Act. Between October 2007 and January 2008, EPA received seven petitions requesting the Agency to use its authority under these sections to regulate GHG emissions from these sources. As previously mentioned, the ANPR summarizes and seeks comments on these petitions.

Nonroad engines and vehicles cover a wide variety of engines and equipment that are typically mobile or transportable. They include lawn and garden equipment, off-road vehicles, portable generators, farm and construction equipment, ships and locomotives. EPA may set emissions standards for these engines and equipment if the appropriate endangerment determination is made. Like the standards for motor vehicles, the emission standards for these engines and equipment would only apply to new engines or equipment. In general, EPA may consider the same factors and provide the same kinds of flexibility compliance mechanisms (e.g., averaging, trading and banking) as apply to standard-setting for new motor vehicles.

For aircraft, EPA is required to set emissions standards if the appropriate endangerment determination is made under section 231. EPA’s authority is not limited to setting standards for new aircraft. As with the other categories of mobile sources, EPA has significant discretion in the factors it considers in setting standards for aircraft and the ability to develop flexible compliance mechanisms.

In the case of fuels, under section 211(c), EPA may establish controls related to fuels or fuel additives where the emissions products of the fuel or fuel additive cause or contribute to air pollution that, in the judgment of the Administrator, may reasonably be anticipated to endanger public health or welfare. This authority extends to fuels or fuel additives for use in motor vehicle or nonroad engines; it does not extend to jet fuel or fuel used in stationary sources. In setting standards or requirements for fuels, EPA can consider all of the same factors discussed above for motor vehicles.

In the past, the Agency has used a systems approach for considering fuels and vehicles together. We have also allowed emissions averaging and flexible banking and trading with market incentives for early introduction of clean technologies and phase-ins to provide more time to address technical challenges. The ANPR notes that the broad regulatory coverage of Title II of the Clean Air Act offers the potential for comprehensive mobile source GHG emissions reductions using cost-effective approaches in the mobile source sector. The Clean Air Act has also been implemented to allow for staggered rulemakings for various subsectors and fuels, rather than regulating all mobile source entities at one time.

Section 211(o) establishes the renewable fuels standard and, as recently amended by EISA, requires significant quantities of renewable fuel, including renewable fuel meeting various GHG “lifecycle” emissions thresholds. As amended by EISA, section 211(o) requirements for GHG emission reductions do not trigger any further regulation of

GHGs under the Clean Air Act, nor is regulation under section 211(o) contingent on an endangerment finding.

In response to the passage of EISA, the Department of Transportation has proposed new standards for passenger cars and light trucks that would significantly increase the fuel economy, and decrease the GHG emissions, of the U.S. light-duty vehicle fleet. Analysis presented for comment in the ANPR describes significant GHG reductions that could be achieved for passenger cars and light-duty trucks under the Clean Air Act. A substantial amount of the volume of reductions contemplated in the ANPR will likely be realized by the new DOT standards in the model years covered.

The ANPR also discusses a wide range of technologies available to reduce GHG emissions from heavy-duty trucks and nonroad engines and vehicles. The opportunity for GHG reductions from the nonroad sector closely parallels the highway sector, especially for the heavy-duty highway and nonroad engines that share many design characteristics.

Stratospheric Ozone Protection Authorities

The ANPR also discusses section 615 which contains endangerment language related to effects on the stratosphere, and provides EPA with substantial discretion regarding regulatory approaches. This section is mentioned in the interest of providing a comprehensive indication of possible Clean Air Act authorities; this section could only be used for GHGs if the Administrator made the requisite scientific finding concerning GHG's effect on the stratosphere and any resulting effect on public health or welfare.

In summation, the ANPR presents information relevant to, and solicits public comment on, how to respond to the Supreme Court's decision in *Massachusetts v. EPA*. The notice reviews the various Clean Air Act provisions that may be applicable to GHGs, examines the issues that regulating GHGs under those provisions may raise, and provides information regarding potential regulatory approaches and technologies for reducing GHG emissions. The preface of the notice also conveys the Administrator's views at this point in our examination of the Clean Air Act authorities potentially applicable to GHGs:

"The potential regulation of greenhouse gases under any portion of the Clean Air Act could result in an unprecedented expansion of EPA authority that would have a profound effect on virtually every sector of the economy and touch every household in the land. . . .

"I believe the ANPR demonstrates 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. Based on the analysis to date, pursuing this course of action would inevitably result in a very complicated, time-consuming, and likely, convoluted set of regulations. These rules would largely pre-empt or overlay existing programs that help control greenhouse gas emissions and would be relatively ineffective at reducing greenhouse gas concentrations given the potentially damaging effect on jobs and the U.S. economy."

We look forward to exploring these important issues further with Congress and the public. Thank you again for the opportunity to testify.