

TESTIMONY OF PETER GLASER  
ON POTENTIAL GHG REGULATION UNDER THE CLEAN AIR ACT  
SENATE COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS  
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My name is Peter Glaser. I am a partner in the Washington, D.C., office of Troutman Sanders LLP. I received a B.A. from Middlebury College in 1975 and a J.D. from the George Washington University National Law Center in 1980. I practice in the areas of environmental and energy law. I represented the Washington Legal Foundation in filing an amicus brief before the Supreme Court in the *Massachusetts v. EPA* litigation.

Let me begin by stating that I am not here before the committee representing or advocating the position of any particular company or industry. I am not receiving remuneration from anyone for my testimony, and the views expressed in my testimony are my own and not necessarily those of any company or group that I currently represent or have represented.

In addition, I am not here to recommend any particular course of action by this Committee or Congress. I have been asked to offer my views as a practicing attorney of issues pertaining to the potential regulation of greenhouse gases (GHGs) for global warming purposes by the U.S. Environmental Protection Agency (EPA) under the Clean Air Act (CAA).

Under the Court's decision in *Massachusetts v. EPA*, EPA will be required to decide whether GHGs emitted by new motor vehicles may reasonably be anticipated to endanger public health or welfare. The Court did not require EPA to make an endangerment finding. It remanded the case to EPA for further consideration of the endangerment issue. Therefore, based on its analysis of the science, EPA's options are to make an endangerment finding, make a non-endangerment finding, or decide that the science is insufficiently certain to decide either way.

Although the *Massachusetts* case concerned potential regulation of GHG emissions from new motor vehicles under Title II of the CAA, there is no doubt that the Court's ruling that GHGs are "air pollutants" under the statute may have implications for other CAA regulatory programs. Indeed, EPA was asked to set New Source Performance Standards for carbon dioxide (CO<sub>2</sub>) from fossil-fuel-fired electric generating units under Section 111 of the CAA. EPA declined that request last year, stating it had no authority to regulate GHGs for global warming purposes, and the matter was appealed to and is pending in the U.S. Court of Appeals for the D.C. Circuit. It can now be expected that the case will be remanded to EPA for further action in light of the *Massachusetts v. EPA* decision.

Thus, it is likely that EPA will have two formal cases before it in the near term in which it will be examining potential GHG regulation. One of the cases will address motor vehicles under Title II, and the other will address electric generating units under Title I. In addition, it is possible that EPA on its own motion or in response to further petitions may consider potential GHG regulation for other sources.

However, the character of any such regulation remains uncertain. Although the Court's decision clearly provides for EPA regulation under Title II if an endangerment finding is made, the decision does not say anything at all about what that regulation should be or when it should become effective. Those matters are left to EPA judgment confined by the specific CAA provisions under which EPA would invoke regulation. One of the arguments made by EPA and supporting parties in the *Massachusetts* litigation was that the CAA was not designed to address an issue such as global climate change. While the Court ruled that GHGs meet the CAA's definition of "air pollutant," the fact remains that GHG regulation under the CAA is likely to be an uncomfortable fit.

The most obvious example is the National Ambient Air Quality Standards (NAAQS) program, the program the Courts have termed the “cornerstone” of Title I of the CAA. One of the prerequisites for the establishment of air quality criteria and NAAQS in Sections 108 and 109 of the CAA is similar to the regulatory trigger language the court construed in *Massachusetts*. Yet it is hard to imagine how NAAQS regulation would work for a GHG. The establishment of a NAAQS triggers a process whereby attainment and nonattainment areas are designated, states are required to submit implementation plans to attain or maintain the NAAQS, and severe sanctions are mandated for non-compliance. Yet, given the nature of globally-circulating GHGs, where a ton of GHG emitted in, for instance, Maryland has the same impact on GHG concentrations over Maryland as a ton emitted in China, there is nothing Maryland could do about attaining or maintaining a GHG NAAQS. Maryland could literally cease emitting any GHGs tomorrow and it would have no discernable impact on GHG concentrations over the state.

Similarly, GHG emissions are not a pollutant transport issue, such as ozone, where groups of states can combine to reduce emissions for the purpose of regional attainment. Given the nature of the issue, not even the most draconian multi-state emission reductions could ensure attainment or maintenance of a GHG NAAQS.

I do not conclude that, if EPA makes an endangerment finding for motor vehicles under Title II, it has authority to establish a GHG NAAQS since the trigger language in Section 108 is not identical to the Section 202 trigger language construed in *Massachusetts*. Nevertheless, given the similarities, it is not a stretch to imagine a petition alleging that EPA not only has authority to establish a NAAQS, it must establish a NAAQS. That issue would be a difficult one for the agency and the courts to resolve.

Perhaps a more likely initial battleground for EPA CAA regulation, assuming an endangerment finding is made, is the NSPS program under Section 111. Yet this program too is likely to create regulatory difficulties. A first issue might be whether Section 111 authorizes EPA to create a market-based cap and trade program, or whether EPA's authority is limited to imposing more inefficient command-and-control technology requirements on individual sources. In the Clean Air Mercury Rule, now being litigated before the U.S. Court of Appeals for the D.C. Circuit, EPA interpreted Section 111 as allowing it to implement a cap and trade program to control mercury emissions from coal- and oil-fired utility units. However, a group of environmental parties has filed a brief challenging EPA's authority to utilize a cap and trade program under Section 111, claiming that a cap and trade program does not meet the definition of a "standard of performance" under that section. Thus, the ability to utilize cap and trade under Section 111 is, at least for the moment, uncertain.

Section 111 creates additional regulatory difficulties for controlling GHG emissions. A "standard of performance" is defined under Section 111(a)(1) as "a standard for emissions of air pollutants which reflects the degree of emission limitation achievable through the application of the best system of emission reduction which (taking into account the cost of achieving such reduction and any nonair quality health and environmental impact and energy requirements) the Administrator determines has been adequately demonstrated." This standard has come to be known as "best demonstrated technology" or BDT. As can be seen, under BDT, both the availability of technology and the cost of technology are factors the Administrator must consider in setting a standard of performance. It is true that the standard can be set to be "technology forcing." On the other hand, the standard cannot be based on results achieved short-term at a small-scale "pilot" plant. EPA must show that the standard is "achievable" in the real world, that

is, it “must be ‘adequately demonstrated’ that there will be ‘available technology.’” *Portland Cement Ass’n v. Ruckelshaus*, 486 F.2d 375, 391 (D.C. Cir. 1973), *cert. denied*, 417 U.S. 921 (1974), quoting the statutory text. It is EPA’s burden to make this demonstration; it cannot be passed off to industry. *National Lime Ass’n v. EPA*, 627 F.2d 416, 432 (D.C. Cir. 1980).

These standards will be difficult to apply to the nation’s coal-fired electric generation fleet. While I do not offer myself up as an expert on carbon control technologies, cost-effective technologies do not appear to exist today for controlling carbon emissions from coal-based electric generating plants on a large-scale basis. Certainly many promising technologies are in development, and both the Department of Energy and the Electric Power Research Institute expect these technologies will become cost-effective at some point after 2020. But for purposes of developing standards of performance for coal-based generation today, new source performance standards are likely to prove controversial. For instance, carbon-scrubbing at a pulverized coal plant may consume a very large percentage of that unit’s total electric power. This is likely to be problematic given the requirement in determining standards of performance for considering the energy requirements of the control technology.

Controlling emissions from coal-based generation through the NSPS program is also likely to prove difficult because of the need not only to capture carbon dioxide but to store it safely indefinitely. Again, the results of initial testing are promising and, in the not too distant future, sufficient testing is expected to be accomplished to demonstrate the ability to store large quantities of carbon dioxide underground over the long-term. In the meantime, however, given the lack of large-scale storage data, and the very difficult liability issues presented by underground storage, an attempt to establish a standard of performance for carbon capture and storage may be difficult to justify.

Other possibilities for application of the NSPS program to control carbon emissions from the electric power sector might be requirements for the use of IGCC technology or even fuel switching to natural gas. Even under Section 111(h), there are significant legal issues as to whether such requirements would be valid. Section 111(h) provides that, if EPA determines that it not feasible to prescribe a standard of performance, EPA may prescribe “a design, equipment, work practice, or operational standard, or combination thereof, which reflects the best technological system of continuous emission reductions which (taking into consideration the cost of achieving such emission reduction, and any non-air quality health and environmental impact and energy requirements) the Administrator determines has been adequately demonstrated.” Use of this section to, for instance, set a standard for carbon emissions from a coal plant that would require switching to natural gas would be unprecedented. EPA has regulated sulfur dioxide and nitrogen oxide emissions from coal plants for many years, but has never determined that gas plant emissions should set the standard for emissions from coal such that coal would have to be replaced by gas. It is hard to imagine EPA attempting to utilize Section 111 to, in essence, order that coal plants convert to gas technology. The economic impacts of such decisions could be staggering.

The fact that new source performance standards must be technology- and cost-based creates further difficulties in utilizing Section 111 to implement a cap and trade program for GHG emissions, even assuming a cap and trade program represents a valid standard of performance. In CAMR, for instance, EPA was constrained in choosing the two-phase mercury caps by the Section 111 requirement that a standard of performance be achievable. EPA’s methodology for calculating the cap thus involved essentially determining the mercury emission reductions achievable at individual units, summing those reductions up nationwide, and setting

the cap on that basis. A GHG cap would have to be set on the same basis, that is, based on a determination of what is achievable nationwide based on technology and cost considerations. EPA could not simply choose a cap based solely on its views of desirable emission reductions.

Finally, the U.S. Court of Appeals for the D.C. Circuit, has stated that the Best Demonstrated Technology standard is a very broad standard indeed. According to the Court, “[t]he language of section 111 . . . gives EPA authority . . . to weigh cost, energy, and environmental impacts in the broadest sense at the national and regional levels and over time as opposed to simply at the plant level in the immediate present.” *Sierra Club v. Costle*, 657 F.2d 298, 330 (D.C. Cir. 1981). The Court stated that ““section 111 of the Clean Air Act, properly construed, requires the functional equivalent of a NEPA impact statement.”” *Id.* at 331, quoting *Portland Cement*, 486 F.2d at 384.

Moreover, in 1980, in a case involving the limestone industry, the Court noted the “rigorous standard of review under section 111” applied by reviewing courts. *National Lime*, 627 F.2d at 429. The Court stated that the “sheer massiveness of impact of the urgent regulations,” considered in that and other cases had “prompted the courts to require the agencies to develop a more complete record and a more clearly articulated review for arbitrariness and caprice” than had been applied in previous cases. *Id.* at 451 n.126.

If massiveness of regulatory impact was a concern in a limestone industry case, that concern would be magnified many times in promulgating GHG standards of performance. A plethora of issues would be relevant in setting GHG standards, with EPA weighing the cost, energy and, and environmental impacts of GHG regulation “in the broadest sense at the national and regional levels and over time” as if it were preparing an Environmental Impact Statement. A large number of parties would be interested given the overweening importance of the issues.

Thus, an EPA rulemaking to establish NSPS for utility units would be highly complex, controversial and time-consuming. Quick results, to say the least, cannot reasonably be expected.

In conclusion, back when the issue that ultimately led to the *Massachusetts* decision first began, then EPA General Counsel Jonathan Z. Cannon wrote an April 10, 1998 memorandum to then Administrator Carol M. Browner examining potential regulation of GHGs under various provisions of the CAA. He concluded that “[n]one of these provisions easily lends itself to market-based national or regional emissions cap-and-trade programs.” It is also true that attempting to utilize Section 111 to control the nation’s GHG emissions, either through command or control or cap and trade, would be complicated and controversial. In the aftermath of the *Massachusetts* decision, EPA may undertake proceedings to determine whether a sound basis exists to make an "endangerment" finding and, if so, to then determine what kind of regulations it may intend to propose under which specific CAA program. But the ability of EPA to utilize the CAA to create an ambitious regulatory regime is likely to prove very difficult indeed.