

D I A L O G U E

Air Pollution Standards for Stationary Sources—Next Moves

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Moderator: **Donald Stever**, Partner, K&L Gates

Rob Brenner, Director of Policy, Analysis and Review, Office of Air Radiation, U.S. Environmental Protection Agency

William Brownell, Partner, Hunton & Williams

John Walke, Senior Attorney, Natural Resources Defense Council

Leslie Carothers: Donald Stever is an environmental lawyer with more than 30 years of civil and criminal environmental litigation and counseling experience. He is now a partner at the K&L Gates law firm in New York. In his earlier incarnations, he was chief of not one but two sections—enforcement and environmental defense—at the U.S. Department of Justice. And when he was even younger, in the 1970s, he was the primary, or perhaps the only, environmental lawyer in the Attorney General's Office in New Hampshire. It was during that time that I got to know him when I was enforcement director at the U.S. Environmental Protection Agency (EPA) in Boston. His boss at the time was the recently retired Justice David Souter, who was then the attorney general, and Don claims modest credit for the Justice's relatively friendly decisions on behalf of the environment. So, Don, welcome, and take it away.

I. Introductions

Donald Stever: Thank you, Leslie. Years ago, some of you may remember that the distinguished philosopher René Dubos argued rather persuasively that humans are incapable of acting intelligently and effectively to deal with threats that are not imminent. Well, welcome to the Clean Air Act (CAA).¹ The statute was initially enacted in 1970 to replace a patchwork of state laws and was designed to address currently observable, serious but obvious existing air pollution problems. Subsequent amendments in 1977 and 1990 and EPA implementation of those amendments tried to address, though to date not terribly effectively, the more subtle and difficult long-term consequences of anthropogenic sources of air pollution.

Now in 2009, the U.S. Congress and the new management of EPA are beginning to look again at how to manage our nation's air and the regulation of stationary sources of air pollution to address, among other things, climate change

and other more subtle long-term effects of air pollution. And they do so in a period of unprecedented economic disruption and in the context of a truly global economy.

Now, as you'd expect of the Environmental Law Institute, we have assembled an expert panel to address the challenges facing EPA in rethinking the CAA, drawing from the Agency itself, from industry, and from the public-interest sector. Our panel is comprised of three highly experienced CAA lawyers. Rob Brenner is Director of Policy Analysis and Review in EPA's air program. Rob will lay the groundwork by summarizing the regulatory background and the regulatory agenda that EPA is setting for itself, considering, among other things, the imposition of additional and new controls on large stationary sources, both in terms of regulating criteria pollutants, as well as air toxics and fine particulates under the existing CAA framework. And hopefully, Rob will also mention something about the Agency's greenhouse gas (GHG) initiative.

Following Rob will be Bill Brownell. Bill is a partner in Hunton & Williams in Washington, D.C., and for a very long time has represented industrial companies and industrial trade organizations in CAA matters. Bill will address what I like to term "the uncertainty factor" that faces industry in attempting to anticipate and then comply with a constantly shifting target as the CAA rules are revised as EPA, Administrations, and the makeup of Congress change over time. I expect Bill to provide a somewhat different perspective from Rob's and from John's on the anticipated EPA rule-making docket.

Our last speaker, John Walke, is a senior attorney at the Natural Resources Defense Council (NRDC) where he directs its clean air program. John joined NRDC after a stint doing air work in EPA's Office of General Counsel. By the way, among John's activities at NRDC is "John Walke's Blog,"² which is worth following because it gives a good sense of what John and NRDC are thinking about. Environmental public interest groups have, for a number of years, felt excluded from whatever occurred in Washington in the way of regulatory policy dialogue. They didn't have a seat at the table. They may have been in the room but they were over by the window and not at the table. That paradigm may soon shift, and John will provide a thoughtful environmentalist perspective on the topic of where EPA's CAA policy should be headed.

1. 42 U.S.C. §§7401-7671q, ELR STAT. CAA §§101-618.

2. NRDC Switchboard, John Walke's Blog, <http://switchboard.nrdc.org/blogs/jwalke/>.

II. Regulatory Background and EPA's Agenda for the Future

Robert D. Brenner: Thank you very much, Don. You let a non-lawyer sneak into this panel: I'm a policy person, the director of the Air Policy and Review Office at EPA. I really appreciate the opportunity to provide you with a policy perspective on what we're trying to accomplish using the CAA, focusing especially on stationary sources, and hope to set the stage for the remainder of the panel.

As you've heard, the principal goal of the [Barack Obama] Administration is to retool the economy, to make it greener, and to make it more competitive. One of the ways to accomplish that retooling is by designing smarter regulations that create fair competition between alternatives. That is one of the main considerations we have in mind at EPA as we pursue our regulatory program. At the same time, we understand the implications of that kind of change in our regulatory approach. There is a set of industries out there that will be facing new environmental challenges, while at the very same time, they're still reeling from the set of recent economic and energy upheavals.

We have to implement these programs not only consistent with the statute, but also in the most cost-effective ways possible. The obvious new challenge we face is reducing GHG emissions. You're aware that there is legislation under way in Congress, and the Administration has also indicated its goals of reducing U.S. emissions of GHGs by 17-20% below 2005 levels by 2020 and, ultimately, by 2050, achieving around an 80% reduction in emissions.

There are also a number of upcoming requirements to reduce conventional pollutants further. Among these are fine particles, ozone precursors, sulfur dioxide (SO₂), nitrogen dioxide (NO₂), and toxics. Industries are trying to figure out a path to their future that will enable them to deal with all of these energy, economic, environmental, and climate issues. This will often mean, in many cases, focusing very hard on energy efficiency in the short term while developing the new technologies and the new processes that are going to be necessary for the mid- and long term.

It's very hard to get the capital together for those kinds of investments. Capital markets are often unfriendly, and boards of directors are hard to convince, especially if they have the sense that they're only going to see a portion of the upcoming requirements and if they suspect that the decisions they're going to be making as they decide how to allocate capital could end up being suboptimal as future requirements come to light.

Too often, companies have no choice but to respond, rule by rule, with add-on controls, rather than seriously considering more comprehensive and often more effective solutions that involve new processes and technologies. That is why long-term climate legislation is going to be very valuable—it's going to give companies a more complete view of

future requirements that they're going to face. And it is why organizations of industry leaders, such as the U.S. Climate Action Partnership (USCAP), are strong supporters of this type of legislation.

The regulatory approach most effective at moving industries along this path is a cap-and-trade system, which is probably best accomplished with new legislative authority. The flexibility of that type of system would provide sources with additional incentives to develop advanced technologies because it would use up fewer allowances leaving more to sell. That type of flexibility also makes it relatively easy to accommodate the early regulatory steps we're now pursuing at EPA.

But while we continue to work with Congress on legislation, we also need to make the best possible use of the tools we have under the CAA to give the nation a head start on meeting those climate goals. First of all, if we formally make the finding that climate change endangers public health and the environment, which we have already proposed to do, the CAA requires us to address it.³

More broadly, we don't want to go through a period like the 1980s again, when we waited around for Congress to pass what eventually became the 1990 CAA Amendments. It took a while for Congress to act, and we lost a lot of ground on dealing with toxics and ambient air quality standards. We learned a lesson from that: it's important for us to operate as best we can under existing authorities while working intensively with Congress to pass legislation. That is what you're going to see us trying to do.

As we work with these existing authorities, we want to make sure that any of the GHG regulations we develop will fit into the existing regulatory structure while being compatible with what we expect the picture will be once Congress legislates. That compatibility will often be ensured by crafting regulations that advance along the path that I talked about earlier: securing efficiency-based short-term improvements while aiming at the new breakthrough kinds of technologies and processes for the longer run.

So, our focus is stationary sources today, and I'll give you an overview of what kinds of rules are coming on that front. But before I do that, I want to make an analogy with our recent experience on the mobile source side. There's a lot to be learned from our recent agreement with the automobile industry. EPA has worked with the industry over the years to get tighter emission standards for conventional pollutants. Now, with the new rule limiting GHG emissions from cars and light trucks, they've begun that long-term path I talked about, which began with increased efficiency and then can move on to other advanced technologies, such as plug-in hybrids and hydrogen vehicles.

So, the question is, can we find a similar regulatory path for other sectors of the economy besides cars and trucks? For

3. EPA has since issued its endangerment finding. 74 Fed. Reg. 66495 (Dec. 15, 2009).

example, think about industrial boilers. Perhaps in the short run, the greater efficiency and the initial progress will happen through action, such as cogeneration, and then down the road, new technology, such as fuel cells, would enable them to get dramatic reductions in GHG emissions. We're trying to design our regulations to enable that kind of progress.

How do we achieve the kind of integration that's needed? I think the answer generally is going to turn out to be a sector-based approach where we deal with each industrial sector in an integrated way that accommodates all the requirements that bear on that sector. We've already been doing that to some extent. The auto industry work that I mentioned earlier is an example of that. Many of the air toxics rulemakings are a partial step in that direction, where we've integrated the requirements of multiple rules and, in some cases, multiple statutes, such as the CAA and the Resource Conservation and Recovery Act (RCRA)⁴ from the waste side.

So, I think we're going to continue this approach. You could almost call it a virtual sector type of approach as we fold climate concerns into our existing regulatory structure. Ultimately—and I'm talking years from now, not months—it may even end up being wise to reorganize EPA along sector lines. But however it's done, we need to and we intend to work toward this sector approach, to enable industry to both understand the full regulatory picture and better inform us on how to improve it. Done right, we think this is the approach that will enhance productivity, help insulate the United States from energy shocks, and avoid the disruptions that would be associated with a piecemeal approach.

So, with that as a preamble and a framework, let me give you a brief look at some of the most important stationary source rules that either have just been issued or are coming up shortly. I'm going to start with the GHG rules. There are four rulemakings that are under way or completed. The first is the mandatory GHG reporting rule. Next, there is the endangerment finding. Finally, there are two rules dealing with CAA permitting. The first permitting rule, covering which sources are affected, is called the PSD [prevention of significant deterioration] tailoring rule. The second revisits the issue of when GHG regulation is triggered, a topic previously addressed in a guidance memo (the Johnson memo) issued under the previous Administration.

The first step we took was to propose the mandatory GHG reporting rule in early March. That final rule was signed in September in time to require the beginning of reporting next year. It applies to direct emitters of GHG with emissions greater than 25,000 tons per year. It also covers suppliers of fossil fuels and industrial chemicals and manufacturers of motor vehicles and engines. Although it excludes most small businesses, it still covers about 85% of total U.S. GHG emissions and fits in well with the concept I mentioned earlier of being consistent with climate legislation. In the context of that type of legislation, it's going to be important to have a mandatory reporting system up and running to provide the data to support legislative design as well as the operation of a cap-and-trade system.

I personally believe the rule is going to have another more immediate effect: once the emissions data becomes public, there's going to be what I call a "publicity effect" that could lead to near-term reductions, just as we saw when the toxic release inventory began in 1987 when aggregate emissions of toxics across the country went down by close to 20% once they were made public. I don't know that the GHG reductions will be that large—they probably won't—but I'm willing to bet they'll be significant and will surprise many of our critics who argue that even the initial reductions will be difficult and costly. In contrast, I think those early reductions are going to be relatively easy. There's a wealth of opportunities out there to cut emissions and save money at the same time through better energy efficiency, and we have a number of programs to help, such as Energy Star and SmartWay.

The next step that we took was in April, when Lisa Jackson, the EPA Administrator, proposed to find under the CAA that man-made GHG emissions endanger public health and welfare and that carbon dioxide (CO₂) and other GHGs emitted from the light-duty motor vehicles contribute substantially to those emissions and to that endangerment. Over two years ago, in *Massachusetts v. EPA*,⁵ the U.S. Supreme Court ordered EPA to issue findings on those two points, and we're now working toward issuing the final finding.

And in late September, we proposed rules that deal with certain GHG-related permitting issues under the CAA; those rules, along with the endangerment finding, are the necessary steps to respond to the *Massachusetts* decision. We're designing those rules to help achieve the GHG reductions in a sensible way without imposing burdens on small sources since, as I mentioned earlier, the vast majority of the stationary source emissions come from larger facilities emitting over 25,000 tons per year of GHGs.

Given those steps in responding to *Massachusetts*, the next question becomes: what is it we're going to do in terms of direct federal regulation to reduce those emissions from stationary sources analogous to what is already under way with respect to mobile sources?

As you could tell, those of you who've been able to look through the Advance Notice of Proposed Rulemaking we did at the end of last year, the staff at EPA have been leaning toward using new source performance standards (NSPS) that would enable us to work with industries one by one to develop that type of new technology path discussed earlier. That approach would be especially useful for power plants, because it gives them the structure to directly integrate criteria pollutant and climate concerns over time by folding in things like efficiency and eventually new technology, such as carbon capture and sequestration. And as noted by the EPA Administrator in her remarks at the California Climate Summit in late September, we're currently exploring moving forward with that type of NSPS approach.

We intend to solicit a good deal of advice as we consider those issues. For example, we have a workgroup established under our CAA Advisory Committee that's going to make recommendations to us with respect to best available control

4. 42 U.S.C. §§6901-6992k, ELR STAT. RCRA §§1001-11011.

5. 549 U.S. 497, 37 ELR 20075 (2007).

technology (BACT) provisions and for new sources and how we would use those BACT provisions in a GHG context. Their first meeting is this afternoon.

With respect to criteria pollutants and toxics—the more traditional pollutants we’ve been dealing with in the CAA—it is vital that we not lose sight of what our core mission has been—protecting air quality and thereby saving lives. We know that deep reductions are going to be needed to meet air quality standards and to reduce mercury, acid rain, and nitrogen deposition, and it’s clear that the reductions are needed to protect public health.

With respect to fine particles, the evidence is in—it has been in for a long time—particulate matter (PM) exposure is causing tens of thousands of deaths and hundreds of thousands of illnesses each year. And we now know that ozone has mortality effects as well. CASAC, the Clean Air Scientific Advisory Committee, composed of outside scientists, has made it clear that current standards are not tight enough.

So, we’re going to be dealing with those issues and with toxics issues at the same time we’re working to reduce GHGs and make that transition to a low-carbon energy sector. As I said, if we do a good job of integrating our climate work with our traditional air pollution programs, we can help industry prepare for those multiple requirements.

As to the conventional pollutants, there are going to be a series of decisions coming out with respect to reviews and, where appropriate, revisions of those standards, because we’re now on the five-year cycle that is required under the CAA and reinforced by recent litigation. We’re also having to resolve some controversies from decisions made in the past Administration on lead monitoring, primary and secondary ozone standards, and the annual fine particle standard that Judge David S. Tatel mentioned in his talk.⁶

The implication of all of that, of course, is we’re going to be facing huge implementation challenges, and there’s always a temptation on the part of some to say we should slow down because there are too many other things underway. While this may be true, the health risks, as I mentioned, are very significant. Protecting public health is why most of us are in the public policy arena, and we owe it to the public to find alternatives that do not delay the achievement of those large benefits.

We’re certainly aware that much of the implementation of those standards is carried out by the states via their state implementation plans, and we’re going to be working with them on a number of pilot projects over the next year to make this a more effective and efficient process. We also want to move with them toward a more integrated multi-pollutant approach, what we call air quality management, which had been recommended to us by the National Academy of Sciences.

In the power plant arena, in terms of the rulemakings we’re doing there that helped the nation meet those ambient air quality standards that I just referred to, those rulemakings are good illustrations of this sector-based approach I’ve been talking about. Looking at the power plant sector, there are rulemakings aimed at interstate pollution transport and

air toxic emissions from that sector. We’re going to work on them in an integrated way. We have the workgroups that are developing those rules working together.

I’m not going to go into the details of the Clean Air Interstate Rule (CAIR) revision⁷ that we’re now working on under a court remand, and I’m not going to go into the details of the maximum achievable control technology standard for utilities,⁸ but I will point out that we are working on them together. We have the two groups that are developing those rules working together in an integrated sort of way with a lot of crossover in terms of the membership of the two groups. That kind of sectoral approach as we address toxics and criteria pollutant and ultimately GHG rulemakings associated with each of those sectors could work, I believe, equally well in other sectors, such as chemicals, cement, and paper manufacturing, for example, and I think you’re going to see a lot of that happening at EPA in the future. We can come back to the details of some of those rules, although I expect my colleagues will pick up on some of that in their presentations.

I want to wrap up by saying we have a path to the future that has both that short-term component and the longer term component. Mostly I’ve been talking about the short term, where we have to use the regulatory authority that we currently have, the existing CAA, to address both climate and conventional pollutants. Over the longer term—after climate policy is largely settled—we’re going to be moving toward that sector-based strategy, and we’ll be doing it more rapidly, I believe, than we are able to do under the current CAA. As I noted earlier, eventually, years from now not months, it may be advisable to reorganize EPA, I think, to enable it to manage that kind of integrated approach and help move industries toward that long-term new technology path.

I should add that it’s not just EPA that will need to take a more integrated approach. In many cases, there’s a need for collaboration among agencies as well. For example, turning back to power plants, if we were to achieve the most comprehensive and integrated power plant regulation possible, we’ll need to develop effective working relationships and coordinated rulemakings with the U.S. Department of Energy and the Federal Energy Regulatory Commission. This goes for other sectors as well, as you can see by looking at our work with communities on reducing GHGs and other programs. We have put in place a memorandum of understanding with the U.S. Department of Housing and Urban Development and the U.S. Department of Transportation on how we can cooperate to foster sustainable communities, which is another good example of the opportunities that become apparent and achievable when agencies work together.

All of these are really testimonies to the breadth and the pervasiveness of climate change and the efforts to control it. The most effective course is going to be a legislative one that integrates and builds on the kinds of measures and approaches that we’re now considering. Until that legislation arrives, we’re going to be using appropriate CAA tools to give us a running start.

6. Judge Tatel made a keynote address prior to the panel discussion. His presentation is available at http://www.eli.org/Seminars/past_event.cfm?eventid=496.

7. See Clean Air Interstate Rule, <http://www.epa.gov/cair/index.html>.

8. See Utility MACT standard, <http://www.epa.gov/air/mercuryrule>.

III. Industry Management and Compliance

William Brownell: I think you can see from Rob's presentation that there is an unprecedented number of regulatory proceedings under the CAA, and an unprecedented degree of uncertainty for industry right now. After the 1990 Amendments, we dealt with all sorts of regulatory proceedings implementing those amendments. There is an even more tremendous amount of activity going on now under the CAA. At the same time, there's a tremendous need for capital investment on the part of industry in pollution control projects, climate mitigation projects, and new energy technology. That's where the challenge comes in. How does industry manage these investments and their compliance planning in this state of uncertainty, and how do regulators manage it? Rob has talked a bit about it from the regulator's standpoint. I'll talk a little bit about it from an industry standpoint.

I'm going to start with the conventional pollutants. What EPA is going through right now with respect to the conventional pollutants is basically a redoing of everything that happened under the previous Administration, either as a result of court decisions, rulemakings, or because of changes in policy.

For example, CAIR was implemented to effectuate some very substantial reductions in SO₂ and nitrogen oxide emissions, was vacated and remanded to EPA by the U.S. Court of Appeals for the District of Columbia (D.C.) Circuit, and was left in place during the remand.⁹ The Agency is now going through the process of figuring out what to do in response to that remand. That involves a whole range of issues, including: What's the transition schedule from where we are now to more stringent regulation in a phase two or a phase three program? What's going to be the stringency of that future program? What's going to happen with emissions trading? Is there going to be regional trading or interstate trading? Is trading going to play a role at all? All of those things are being debated right now and are going to effect compliance obligations many years into the future.

The CAIR states, for example, have suggested interstate caps that would come into play in 2017, and the Ozone Transport Commission states have suggested further unit-specific limits that would be phased in from 2017 to 2025.¹⁰ So, we're talking about compliance programs that are going to have a significant life.

At the same time, EPA is revisiting the national ambient air quality standards that Rob mentioned. For example, EPA just recently went to the D.C. Circuit in the ozone ambient air quality standard case and suggested that they want to take the standard back and revisit it, proposing revisions in December 2009, and finalizing it in August 2010.¹¹ That's a very significant proceeding.

The five-year review for PM_{2.5} expires in October of 2011. The schedule will perhaps be accelerated so that revised standards can be taken into account in conjunction with revision of the CAIR rule, to establish what the requirements are going to be for state implementation plans. A variety of other ambient air quality standards are being revisited as well, and how these standards come out is going to influence how states implement the CAA, affect the viability of trading under the CAA versus unit-by-unit control, and perhaps expand CAIR beyond the current CAIR states to other regions of the country. So, again, very significant decisions are being made right now by EPA.

In the air toxics area, there is a lot being redone in response to recent court decisions that Judge Tatel talked about during his earlier presentation. With respect to the power industry, the Clean Air Mercury Rule was sent back to the Agency and is being redone.¹² The Agency is looking not only at mercury now, but the whole range of air toxics emitted by the utility sector. This involves some very significant work both in terms of collecting data with respect to emissions that haven't really been examined before as well as formulating policy with respect to how to regulate the sector.¹³

CAIR, air quality standard implementation, air toxics implementation—many of these things drive industry toward the same sorts of pollution controls. How do you integrate those under the substantive standards and rule-making deadlines that are provided under the CAA?

In addition, NSPS for major source categories are being reconsidered. NSPS for the power industry is, I believe, pretty much on the same track as the Air Toxics Rule; again, similar control technology requirements may result. New source review remains an issue. The Agency is looking at rules that were being worked on in the previous Administration regarding reporting, recordkeeping, aggregation, and debottlenecking in an attempt to provide perhaps more clarity or different policy outcomes.

And, of course, the specifics on how you implement the PSD program are being addressed in a variety of individual adjudications before the EPA Environmental Appeals Board. For example, in the recent *Desert Rock*¹⁴ decision remanding that permit to the permitting authority, one of the questions addressed is the permitting authority's decision not to look at integrated gasification combined-cycle technology as a potential basis for BACT for a coal-fired boiler. The issue of how you define the source is out there. These issues are all evolving in individual proceedings.

Other issues being revisited include startup, shutdown, and malfunction provisions, §126 petitions, and Title V regulation. Under Title V, what do you do about compliance schedules for allegation of noncompliance? Can you use the Title V process to revisit modification determinations or projects that took place in the past? There's a range of very significant policy issues with respect to all of the traditional

9. *North Carolina v. Environmental Protection Agency*, 531 F.3d 896, 38 ELR 20172 (D.C. Cir. 2008), *modified on reh'g*, No. 05-1244, 38 ELR 20306 (D.C. Cir. Dec. 23, 2008) (CAIR).

10. Ozone Transport Commission Letter to L. Jackson, EPA (Sept. 10, 2009); Lake Michigan Air Directors Consortium Letter to L. Jackson, EPA (Sept. 10, 2009).

11. EPA's Notice That It Is Reconsidering the Rule Challenged in These Cases, *Mississippi v. EPA*, Nos. 08-1200 et al. (filed Sept. 16, 2009).

12. *New Jersey v. Environmental Protection Agency*, 517 F.3d 574, 38 ELR 20046 (D.C. Cir. 2008), *cert. denied* 129 S. Ct. 1308 (2009) (CAMR).

13. *See* 74 Fed. Reg. 31725 (July 2, 2009).

14. *In re Desert Rock Energy, LLC*, PSD Appeal Nos. 08-03 et al. (EAB Sept. 24, 2009), ADMIN. MAT. 41335.

CAA programs we've been thinking about for 20-plus years, going back to the 1977 CAA.

Now, we've got all of the traditional programs that are being redone, and we've got a layer of issues on top of that, adding complexity and uncertainty to the environmental policy debate. A key driver in this regard is carbon or climate regulation. Rob talked about the things that are going on with respect to climate—including an endangerment finding and mobile source, light-duty vehicle regulation. We're looking at something in the first quarter next year—by March 31—for a potential light-duty vehicle standard under Title II of the CAA.¹⁵ Of course, the big question for stationary sources is whether the PSD program is triggered by GHG regulation under Title II for stationary sources? The overarching policy question is whether ad hoc implementation of climate regulation for new and major modifications under the PSD program is the right way to approach climate regulation.

In response to that concern, EPA proposed the PSD tailoring rule trying to focus the PSD review process just on larger sources.¹⁶ There may also be NSPS proceedings for GHGs for certain major source categories—the power industry, refineries, cement plants—as another way of looking at the source categories or the industrial sectors for climate regulation.

So, we've got all the traditional pollutant regulation of the CAA and climate change on top of that. And on top of that, there is continued enforcement activity under the CAA associated with new source review and NSPS, resulting in consent decrees that define yet additional compliance obligations for many companies and industries: unit-specific emission limits, caps for stationary sources or companies, allowance surrender requirements, monitoring requirements, reporting requirements—a whole range of requirements defined through consent decrees that add additional compliance obligations.

And finally, on top of all of this, we have environmental nuisance litigation, which has seen a renaissance over the past decade. Recent significant decisions include one from the Western District of North Carolina that is now on appeal to the U.S. Court of Appeals for the Fourth Circuit.¹⁷ The suit was brought by the state of North Carolina against Tennessee Valley Authority sources outside North Carolina alleging that even though they comply with the CAA, they're creating a public nuisance in North Carolina. Nuisance litigation is being used with respect to climate change as well.¹⁸ So, we've got another layer of uncertainty that rises out of nuisance litigation.

Where do these multiple layers of uncertainty leave us with respect to environmental law, especially with respect to the CAA in 2009? There are changing rules and changing interpretations as a result of rulemaking, adjudication, litigation, guidance, and interpretations. All of this presents

tremendous challenges, both for the regulators to manage in a way that will result in efficient and cost-effective regulation and for industry, which is looking at a whole range of issues and attempting to make investment and compliance management decisions.

Against that background, I'd like to make a few comments on the future of environmental law and CAA regulation. First, how does one provide certainty in this context? Rob talked about rulemaking as one potential way of doing that—sector-based rules where one attempts to take into account various programs and decisions both by the Agency and the courts, in an attempt to provide coordinated guidance under these various programs on how to comply (because, after all, industry does want to comply).

There are challenges, as we all know, in the rulemaking process. Judge Tatel has spoken about the importance of following the statute to the letter. That, in my respectful opinion, is often easier said than done. The Agency has a certain amount of discretion to implement its policies and indeed, we're seeing this Administration exercise its discretion to change policy in certain respects. So, that results in a rulemaking process that is not straightforward. It takes time, and especially if one is going to coordinate many different programs and compliance obligations, it's a challenge.

Moving beyond rulemaking, can one provide certainty through consent decrees? Over the past 10 years, we're seeing the result of enforcement being consent decrees that contain compliance obligations that cover many of the same pollutants that are dealt with in the CAA regulatory programs. And in those consent decrees, there's often an attempt to predict what the future is going to look like and to reflect those compliance obligations in the consent decree. So, we have consent decrees that define future compliance obligations that are really regulation by contract.

From a broader standpoint, what are the administrative policy implications of approaching regulation in that way, that is, having an overlay of individual consent decrees that might ultimately define the most important compliance requirements? What's the implication of folding those terms in a consent decree into a Title V permit? We understand now from recent Environmental Appeals Board decisions that CAA-related requirements of consent decrees are applicable requirements that go into Title V permits.¹⁹

Of course, one of the difficulties with rulemaking as with legislation is that when you deal with controversial issues and resolve those issues, things are left for interpretation for the future. In some cases, it's just so complex that, by force, things are left open to interpretation. Does one therefore provide clarity through some more formal regulatory interpretation process that involves more notice to the public about what the Agency is considering on the interpretation? Does it apply prospectively to provide people notice going forward?

On a related note, should the Agency and the enforcers be thinking about additional metrics for enforcement? We

15. 74 Fed. Reg. 49454 (Sept. 28, 2009).

16. 74 Fed. Reg. 55292 (Oct. 27, 2009).

17. *North Carolina v. TVA*, No. 09-1623 (4th Cir.).

18. *Native Village of Kivalina v. ExxonMobil Corp.*, No. 08-1138, 39 ELR 20236 (N.D. Cal. Sept. 30, 2009); *Connecticut v. American Elec. Power Co.*, Nos. 05-5104-cv, -5119-cv, 39 ELR 20215 (2d Cir. Sept. 21, 2009); *Comer v. Murphy Oil USA*, No. 07-60756, 39 ELR 20237 (5th Cir. Oct. 16, 2009).

19. *In re Citgo Refining & Chemicals Co., L.P., West Plant, Corpus Christi, Texas*, Petition no. VI-2007-01, Order Responding to Petitioners' that the Administrator Object to the Issuance of a Title V Operating Permit (May 28, 2009).

often see enforcement evaluated in terms of number of cases filed, amounts of penalties, and so on. Should enforcers also be looking at metrics related to encouraging compliance, compliance assistance, or some other measure for providing clarity and compliance assistance going forward? That may be difficult to reflect in compliance metrics, but I think it's worth thinking about.

How does one coordinate all these compliance obligations arising out of agencies, courts, and different proceedings? Rob talked about a sector-based approach, and maybe that's the best way. We've tried legislation. There was an effort on multi-pollutant legislation 10 years ago. Programs like CAIR and the Clean Air Mercury Rule that were undertaken during the previous Administration were an attempt to coordinate for a sector some of these programs. Of course, there are limitations in the CAA, both in terms of substance and deadlines that affect one's ability to do that. And if one's going to coordinate, how do you put carbon on top of all of this? One of the difficulties for industry is that making large investments in pollution controls now in an attempt to anticipate all of the conventional pollution programs coming down the road could mean stranded investments in the future if compliance strategies change under climate legislation.

These issues are as much energy as environmental issues. That's one of the reasons that EPA has involved the U.S. Department of Energy in these discussions. For example, one of the issues underlying this debate is what the mix of generating capacity should be going forward in this country. And if the policy decision is that we should be phasing down or phasing out use of fossil fuels, shouldn't we put that on the table and have the debate over how do we do it, over what time, and with what impact on the economy?

Finally, do we need new legislation to accomplish all of these goals? I think we're going to have new legislation at some point—climate legislation—and hopefully, that will provide a forum for these discussions about how we coordinate compliance obligations. Do we also need to open up the CAA to give the Agency more discretion to support its sector-based approach? That is something that I think is worth thinking about as the legislative effort goes forward.

These are all questions we're going to be struggling with in the coming years as we look at these programs and work with EPA, the Department of Energy, Congress, and others in an attempt to gain some certainty and make important compliance and investment decisions.

IV. The Role of Public-Interest Groups

Donald Stever: The environmental groups in unfriendly administrations have historically had a tendency to participate in rulemakings, tried to shape the record then assumed the worst, sue, and hope they get Judge Tatel on the panel. In friendly administrations, historically, they've attempted to move the Agency toward where they believe the government ought to go to better protect the public. John is here to tell us what NRDC's view of that is today.

John Walke: I want to thank ELI for the invitation and also for the real pleasure of having Judge Tatel address us this morning. Unsurprisingly, I find him to be one of the most brilliant and fair-minded neutral jurists of our time. It's like a walk down memory lane listening to his description of cases, because those were cases that I won and my water program colleagues won. In fact, the opinion that he read from said: "EPA, if you don't understand what we're saying, you can go to Congress and try to get the law changed and everything." I pointed that passage out to Felicity Barringer, the environmental reporter for the *New York Times* at the time, and she wrote a little quip about it that said that the chastisement read like a lecture by an exasperated civics teacher. I'd always wished that Judge Tatel had read that opinion from the bench to the soundtrack of School House Rock, "I'm just a bill up on Capitol Hill."

It would be nice to think that the past Administration was motivated by an ingenuous mistake about what the law said, but we all know that not to be true. It's actually, I think, fairly easy to know what the plain language of the statute says and doesn't say, and then you try to create discretion if you don't like the outcome of that exercise. An anecdote was related to me that I think unfortunately captured some of that motivating spirit of the past Administration. There was an all-hands attorney meeting at EPA at some point during the past Administration in which a former general counsel of that Administration addressed all the attorneys and informed the collected group that they were to view Rule 11 as their metric for defensibility.

Now, for those of you who don't know, Rule 11 is the rule in the *Federal Rule of Civil Procedure* that governs attorney sanctions. So, if you're not following Rule 11, you get sanctioned by the court. This struck a lot of people at the time quite negatively, and I think it should. Bill [William Brownell] called some of the decisions of the D.C. Circuit during that period upsetting decisions, and I don't think he meant the double entendre. I found them to be perfectly delightful decisions; I didn't find them to be upsetting at all. I revisit those court decisions not merely out of unconcealed delight but because they really do set the stage for the air pollution agenda that the Obama Administration inherited.

During the first six months of the Obama Administration's tenure, you saw a sweeping reversal of [George W.] Bush Administration rules and policies. It didn't take a rocket scientist to anticipate that this might occur after the election, so I structured my advocacy strategy accordingly by filing lawsuits like mad in December and January, as well as administrative reconsideration petitions in order to set the stage for the administration to be able to grant those reconsideration petitions, to grant administrative stays of the rule, to seek voluntary remands in the lawsuits, to place the lawsuits, and to advance pending reconsideration. And in fact, all of that has occurred.

The other half of those reversals, of course, were court reversals. It's striking, the number of rules issued by the Office of Air and Radiation alone. Under the Bush Administration, they were struck down. I'll just mention some in

which I was involved: the Clean Air Mercury Rule; two sets of new source review rules; multiple air toxic standards—at least four or five or six, I think. Indeed, at one point during an oral argument when the D.C. Circuit had been presented with effectively the same legal question three times in a row, Judge Tatel turned to one of his fellow jurists and said: “Haven’t we decided this already?” This was in the oral argument. In fact, they had decided the same legal issue three times and began to show some exasperation, I think, in that passage and in the decision that followed.

Continuing, the PM_{2.5} fine particle national ambient air quality standards (NAAQS) were struck down by the D.C. Circuit at the beginning of the Obama Administration; at least two sets of ozone implementation rules were overturned governing the 1997 standards; and the startup, shutdown, and malfunction exemption under the Air Toxics Program created by the Bush Administration was struck down. There are many, many more.

Bill mentioned it has been 20 years since the 1990 CAA Amendments, which is really remarkable. I cut my teeth on that law when I graduated from law school and started working at Beveridge & Diamond. In the early 1990s, the Act had just been passed. But the affirmative agenda that Congress thrust upon EPA still has not been carried out. It hasn’t been close to being effectuated yet. We don’t have implementation rules in place yet to govern the 1997 ozone and PM fine standards. Subsequently, we’ve had those standards updated in 2006 for fine PM, which was tossed out in court. In 2008, we saw a standard for ozone, which the Obama Administration has just announced that it’s going to reverse. So, we don’t have implementation rules for these decade-old standards, and the public is the one that suffers from that.

The Agency is going to embark on reissuing those rules at the same time it is reissuing the underlying standards governed by those rules, but it’ll be a challenge to get all of that done in this Administration. EPA announced a schedule for fine PM that I think will have the Agency accelerating and completing the PM fine review by the end of this Administration. But truth be told, all former EPA Administrator Steven Johnson had to do was follow the near unanimous recommendations of CASAC back in 2005 and we would have had these standards in place already. So, this lawlessness and delay does come at a significant cost to the public and public health.

I will touch upon several of the things we expect out of the Administration, and actually my distinguished colleagues have already covered this by and large before me, but I can give you some perspective on my part. I believe that environmental groups will find it commendable that the Administration is coordinating the replacement rule for the CAIR that was struck down in the D.C. Circuit, coordinating that with the Air Toxics Rule for power plants. It makes sense—you’re dealing with the same sector, you’re even dealing with the same pollution control devices and the form of scrubbers to get at hydrogen chloride and the particulate metals, mercury, and at the SO₂ and PM from power plant stacks.

Of course, we fully support the ozone and PM fine NO_x and were involved in a lawsuit challenging the ozone NO_x that led to the welcome announcement by Lisa Jackson in recent weeks that they would review those standards. I think it’s widely agreed, even by all of us on the panel, that the Obama Administration strengthened those standards. I don’t know where they will do so between the 60 and 70 parts per billion level recommended by CASAC, but certainly it will be more protective than the 75 parts per billion standard selected by Steven Johnson.

The air toxics program is one where I think you will see a lot of activity and a lot of change, even though it won’t be kind of the marquee efforts that will be dominated by GHGs and by the sector rules that Rob described. Clearly, power plants, through NSPS, the CAIR replacement rule, and the air toxic standard, will be a dominant focus and appropriately so.

But let me mention to you the Air Toxics Residual Risk Program under CAA §112(f). In 1990, Congress directed EPA to issue air toxic standards called MACT standards for all industrial sectors that were major sources of those emissions, and EPA issued nearly 100 standards. But then, eight years later, Congress directed EPA to undertake a review of those 100 standards to find out whether there are residual risks—remaining risks that are of sufficient concern and harm to the public that EPA should step in and do an additional layer of regulation. The Bush Administration developed a series of policies that amounted to effectively do-nothing decisions, no regulation for virtually every one of the eight to 10, maybe a dozen standards that came out under that Administration.

Indeed, I lost an important but regrettable decision in the D.C. Circuit involving the organic chemical industry. The rule is called the HON—my favorite embedded acronym under the CAA—the Hazardous Organic NESHP, which is the national emission standard for hazardous air pollutants. We just plain lost that decision three to nothing; we had a terrible panel, as Judge Tatel was not there, unfortunately.

The happy thing about the decision is that the court made clear that, as a matter of law, EPA had the policy prerogative of choosing to regulate where the Bush Administration had not. I believe the Obama Administration will regulate. I believe it will reject and reverse the key policies that led to no regulation in those first dozen or so rules. I don’t know when that will be announced or what the vehicle will be, but the refinery rule is one that the last Administration signed on the Friday before Inauguration Day but failed to publish in the *Federal Register*. It has not been issued yet, so you could keep your eye on that one. The cement kiln rule is another one that’s in the pipeline. I think it’s only a matter of time—perhaps in the next six months—before you’ll see announcement of some fairly significant policy changes on the residual risk front.

Let me just touch briefly upon this question of cause and benefits of air quality protections. Even though I personally find it somewhat morally unseemly that we reduce precious life to cold cash, it is a metric and a practice that is used in regulation. And I would point you to an analysis that EPA

did of legislation at the request of Sen. Tom Carper (D-Del.). EPA modeled, not only the power plant SO₂ caps in that bill, but also several other levels, and there are some just really tremendously striking findings there.

The one that just leaps out at you is that EPA says that if there were a cap on SO₂ emissions from the power sector of one million tons, just well below the two million-ton level in the bill—how many are we at today, Bill, four or five million tons from the power sector? Five million tons—you would save 35,000 lives lost prematurely to air pollution each year. That's astonishing. We've never accomplished anything like that before. It's hard. You can't even point to another regulatory program of EPA or the U.S. Department of the Interior that matches that.

In fact, if you look at the Office of Management and Budget cost-benefit report that's done under §812 of the CAA, the overwhelming benefits of the federal government attributable to federal agency regulation are due to EPA's Office of Air and Radiation, and that is attributable to reductions in fine PM that kills people. So, this should be the talisman, the hallmark, the golden ring of this Administration—to reduce emissions from the power sector to save as many lives as possible, and that is a number that you have not heard the last of, because it is an important public announcement from EPA. And I will make it my job as an advocate to make sure that it influences the debate.

A couple of other things of interest to mention. From the beginning of the Bush Administration to the end of the Bush Administration, the budget for EPA's emission standards division in the Office of Air and Radiation was cut 40%. That is the office responsible for issuing every single thing that we have talked about today; NSPS; MACT standards; residual risk standards. All of those rules come out of that office, and it was starved during the Bush Administration. That is not sustainable. Something's going to have to be done about that if this workload is going to be issued.

The other side of that ledger, EPA is overdue in issuing dozens, if not scores, of rulemakings required by statutory deadlines, mandatory duties under the CAA. They are under consent decrees from here to Sunday for issuing those standards, and it is, I think, the responsibility of the environmental community to make sure that the Agency can pursue its highest priorities in a timely fashion.

Let me just close in pointing out certain personnel features of the well-known *Massachusetts* decision. A counsel for environmental groups in that case was one professor, Lisa Heinzerling, who is now the head of EPA's Office of Policy, Economics, and Innovation. At the time the case was decided, my former staff attorney, David McIntosh, was working for Sen. Joe Lieberman (I-Conn.), working on the Lieberman-Boxer-Kerry Bill. David is now the head of the Office of Congressional Affairs at EPA. David's colleague in Senator Lieberman's office at the time was a very fine attorney named Joe Goffman, who was formerly with the Environmental Defense Fund, then went to Senator Lieberman's office, then went to Sen. Barbara Boxer's (D-Cal.) staff with the Committee on Environment and Public Works, and

according to an article in this morning's *Greenwire*, has now just joined EPA as a senior climate counsel.

Donald was kind enough to refer you to my blog on NRDC's Switchboard side. I will close by stealing one of my own titles of one of those blog posts in order to summarize the transition that we've undergone here. The name of the blog post was "Bush Environmental Era: Like a Kidney Stone, This Too Shall Pass." So, it has passed, and we are now in a new era, and I, for one, am not upset but am delighted. Thank you very much.

Donald Stever: Thanks, John. I am obligated to recall that back in Leslie's and my era in the 1970s, there was a time when many people from NRDC suddenly were merged into the government. We had David Hawkins doing clean air work at EPA, who had come out of NRDC, and we had Dick Ayres. Well, things didn't magically get a whole lot better at that time. So, don't count your chickens before they've hatched.

V. Audience Questions and Discussion

Audience Member: I wonder if each of the panelists could discuss what you think the legal implications of the GHG tailoring rule will be. We've heard a lot on both sides as to whether or not that will be something that will make it through court scrutiny.

Robert D. Brenner: I'll just start it out by saying we laid out our legal rationale in the preamble to the rule. The difficult issue for us in deciding how to apply the PSD provisions in the statute was could it be implemented, because what we were talking about was the need for states to undertake permitting programs since it's applied to both PSD and Title V requirements—the CAA Operating Permit Program that could involve an increase in sources that would need to be permitted by a couple of orders of magnitude. We're talking tens of thousands of sources, potentially more than that, that would need to be permitted.

It was just apparent to us—and we work carefully with the states and talked to the states about what they would do to implement such a program—that administratively, it was just impossible. We made the argument that just by virtue of administrative necessity, we could not at this point have the program apply to all of those sources. We needed to find a cutoff that would enable states to continue the program and begin to permit those sources. A few years after we get the program up and running, we'll need to revisit that and see if the infrastructure has improved enough that states could undertake a larger program. We committed to do a study along those lines to see what would be feasible at that point. So, that's the non-lawyer's description of the outline behind the provision.

John Walke: EPA's legal analysis, as Rob said, did draw upon some well-established doctrines of administrative law for their legal argument. The Agency is not relying upon the pre-

cise plain language of the statute. Any attorney in this room would tell you that when you're not dealing in the sweet spot of a plain language argument, you're facing some legal risk, and the Agency is going to face some legal risk here.

The policy outcome is one that is widely commendable. I think you'd probably have agreement upon many different stakeholders in this room with what the Agency is trying to achieve. There are, of course, other competing events with legislation and other rulemakings. Let's be honest, those are factors in the Agency's thinking as well. But I think the Agency has presented a very compelling case under those administrative legal doctrines that it's just not possible for permitting agencies to deal with the number of sources that would be covered under the lower thresholds. That will have some resonance in the way that a judge considers those doctrines, but there is no magic formula that anyone can point to, to determine what the outcome is going to be. Now, I'm certain there will be widely varying opinions on the defensibility of the position, but I will use that as an entrée to Bill's remarks.

William Brownell: Thank you, John. This is an example of something I referenced during my remarks. Each Administration seeks room in the statute, especially a statute as detailed and complex and prescriptive as the CAA, to implement its policies. This Administration, like other Administrations, is looking for discretion to implement its policies, and this is one example.

There is a lot to be said about the policy they're attempting to implement from a good policy standpoint, but the question is whether there's room within the statute for a policy like this. And I think that's something that we're going to find out as the rulemaking progresses and people file comments and as there are further discussions, perhaps before Judge Tatel, about whether or not this policy does fit within the CAA.

Audience Member: Rob, you said something about the National Academy of Sciences' report on air quality management. What is the plan with respect to air quality management at the state level and at the sub-state level?

Robert D. Brenner: Several years ago, the National Academy of Sciences completed a review of the implementation process for meeting air quality standards. It's the state implementation plans that are developed in the states and by localities for meeting those air quality standards. They made a very strong set of recommendations to us that the pollutant-by-pollutant approach that is used and the heavy emphasis on modeling that's done is due for a reworking of the process. That's probably not the most effective way to attain those standards in their current clean air world.

And so we worked with our CAA Advisory Committee to try to turn those recommendations into some specific next steps that were developed over the last couple of years. I'm being very candid. It was difficult to try to move out and begin to implement those next steps in the previous Administration, because there was a lot of distrust as to whether the

Administration was really committed to get better environmental results or was just trying to reduce the cost associated with the process. And so it was really not possible for us to make the kind of progress we would've liked at that point.

At this point, though, we've continued to do the underlying work that would be necessary to begin to use an air quality management approach. We will be doing some pilots with some selected states to demonstrate what an air quality management system might look like where you look at multiple pollutants at once. For example, with ozone, PM, SO₂, and NO_x standards, are there ways to look at them and their sources in a more coordinated way so that the area can develop one or a couple of plans for addressing those pollutants, rather than go through them pollutant by pollutant and develop separate plans, which often affect the same sources in different ways?

At the same time, we're going to see if we can streamline this process overall, not just the multi-pollutant concept that I mentioned that we'll look at on a parallel path, but the steps that are taken—the work that's being done in the states to develop the modeling and develop the plans in EPA review. We think that could benefit from a look at the process and using the lean principles that are now being used in the private sector to try to improve processes. We'll be undertaking that work with the Environmental Council of State Commissioners over the next few months.

Audience Member: Will that include the impact on water quality?

In the case of rulemakings, there is a set of water standards, for example, affecting power plants, and we're working closely with the water office on those. But for the air quality planning being done by the states that you're describing, I think the best example to use is the Chesapeake Bay and the work we're doing there. You can watch that for signs as to where our opportunities might be to use a more integrated approach in the future.

Audience Member: That's just one area, though.

Robert D. Brenner: That's one area. That's one watershed. But I'm a big believer that when you're trying to undertake these new types of approaches, there are a lot of advantages to working on pilots, initial efforts, and demonstrations; figure out how best to make these things work together; and then scale up from there to look at other watersheds. That's the concept here.

Audience Member: Can someone talk a little bit about the enforcement and compliance challenges for EPA in dealing with climate change?

William Brownell: I think the biggest challenge is coordinating what's going to be happening under the CAA with NSPS, PSD, and what other CAA programs might evolve with whatever legislation is coming down the pike.

John Walke: Well, the first and most obvious challenge is you've got to have some laws in place to enforce, so I think we're going to spend the next couple of years getting that down. Another obvious challenge is none of us has ever done this before, both in terms of writing the rules but also once the rules get into place. There are a lot of businesses out there that are going to have to report GHGs under the registry rule that have never undertaken those approaches before. I hope the Agency will be forthcoming with clear guidance. Sector-specific guidance would probably be even more helpful, and some actual examples of how to do that would minimize the compliance and enforcement tensions. We don't want to see violations, and the industry doesn't either.

Contrast the acid rain trading program with its continuous emissions monitors, opacity monitors, and CO₂ monitors on every stack in the country. It sets the gold standard for how you would monitor and enforce a cap-and-trade program. We're not going to have that with a CO₂ trading regime. So, there are going to be some obvious monitoring and enforcement challenges and complexities associated with those basic facts.

Robert D. Brenner: Jumping off that last point, as I said, that's one of the reasons why it was important for us to put out the monitoring rule that we did, the mandatory reporting rule that we put out for sources to have protocols available to them for how to calculate and report their GHG emissions. Those are the sorts of tools that are going to help us a lot with respect to compliance. And unfortunately, as John mentioned, some of them are going to be more complicated than just looking at continuous emission monitors (CEMs), because although in some instances we will be able to use CEMs, in other instances, that won't be possible. There's an opportunity now for sources to begin to develop those protocols consistent with the rulemaking that we developed.

And one other point about these rulemakings: they are, by and large, still under way rather than complete. That means we are using our stakeholder-type processes where there are opportunities to talk with outside groups during the development of the proposal. After the proposal, we have a comment period. We welcome comments that pertain to both the compliance aspects of the rule along with the substance and the level or stringency of the standard itself. And in developing the rules, we create workgroups from offices across the Agency, including both members of our general counsel office and members of the enforcement office, to try to ensure that we get it right from the early stages with respect to those compliance challenges that you rightly referred to.

Audience Member: Is it time to begin thinking about transforming the CAA fundamentally in the way we protect public health? We're not exposed to a pollutant and a single pollutant-by-pollutant basis. It's a mixture. We're not protecting public health.

John Walke: If you look at the time between amendments to the CAA, they have doubled—1970, 1977, 1990. So, we're due in 2020 for the next amendment to the CAA based on that round. Based on the experience of the 1980s, we need to start right now. The other thing I would point out is that the two dominant political parties in this country are far more polarized with respect to the prospect of good clean air legislation than they were in 1990, 1977, or 1970. I will say no more than that, but each person can offer their own diagnosis on that by looking at the makeup of the Senate Environment and Public Works Committee for the minority to decide who's the face of the Republican Party, at least on their environmental agenda.

William Brownell: I think the experience with amending the CAA and the multi-pollutant legislative effort in the early 2000s speaks for itself. It's tremendously controversial to reopen the CAA. At the same time, between amendments, we learned an awful lot about air pollution and regulation that informs what the Agency tries to do from a good policy standpoint. I think we heard from Rob that proceedings are under way. They're trying to do things that make sense from a sectoral standpoint; they're trying to do things that make sense from a climate change standpoint. But there are questions and there are constraints in the statute as to how far they can go. So, I think it is important to have that discussion even though it's going to be a long one, and we can't see how it will come out at the end of the day.

Robert D. Brenner: I do think one of the things we learned from the 1990 Amendment process is how hard it is to develop far-reaching legislation like the CAA. We had everything tilted in our favor in 1990, in a sense. We had a Republican president who had committed to revise the CAA. We had a Democratic Congress with very strong leadership who were determined to get it done. And we had a group of people at EPA who were very determined activists and anxious to get it done.

Even with all of that, it was very tough to complete it. It got completed in November of the second year of the Congress, I think we had all thought at the time that it was certainly going to happen, but it turned out even with everything going our way, it was difficult. That frames a lot of our thinking. Of course, it's important to be continuing to look at the Act and see what kinds of changes could make it work better. The world and the economy certainly changed a lot since then; science has evolved greatly.

My strategy as the director of the Air Policy Office is to see how far we can get using the existing Act to respond to the new science, to respond to the new economic information, to respond to the new environmental challenges. At some point, if we just can't get there under the existing Act, it will be very apparent to us, and hopefully to the Congress, as to what changes are needed.