

In your agency's experience implementing the Clean Air Act (CAA), what is working well? What is not working well?

The science-based approach to establishing the health-based National Ambient Air Quality Standards (NAAQS) to protect against common pollutants including ozone, carbon monoxide, sulfur dioxide (SO₂), nitrogen dioxide (NO₂), lead, and particulate matter (PM) is the cornerstone of the Clean Air Act (CAA) and has driven significant progress made in this country since the 1990 amendments to the Act. The NAAQS provides the basic measuring stick of public health and environmental protection so that our citizens can hold federal, state and local governments responsible for our progress.

By any objective measurement, the Act has been a success in accomplishing its purpose to protect and enhance the nation's air resources. The air is cleaner and public health has improved. Nationally, since 1990, SO₂ emissions have decreased by 65 percent, nitrogen oxides (NO_x) by 48 percent and volatile organic compounds by 52 percent. We have seen similar trends in Pennsylvania, with SO₂ emissions decreasing by nearly 60 percent, NO_x by 36 percent and volatile organic compounds by 52 percent from 1999. Concentrations of pollution in the air have as a result steadily decreased. These reductions are impressive, but even more so when you consider that the gross domestic product has more than doubled.

Another success has been major portions of Title II of the Act, which directs EPA to set standards for new motor vehicles and equipment as well as fuels. Mobile sources continue to be a significant contributor to pollutants such as fine particulates and ozone. Some of the most significant and cost-effective emission reductions are clearly due to these programs. The law contains appropriate safeguards for affected industries and some needed flexibility for states. Even more reduction from mobile sources will be necessary to attain future NAAQS. However, there are challenges related to the provisions of the Act relating to boutique fuels, alternate new vehicle requirements, greenhouse gas (GHG) requirements and other issues. National consistency may be a more effective means to achieve the necessary reductions.

Title V of the Act has also been a success, by enabling the issuance of a single permit document identifying all applicable regulatory requirements, which is useful to permittees, permitting agencies and the public. Title V permits enabled the establishment of comprehensive and consistent monitoring, recordkeeping and reporting requirements. Title V emission fees have provided a funding mechanism to provide resources to administer a permit program.

The Act's New Source Performance Standards (NSPS) for new and modified sources and emission guidelines for existing sources have established uniform minimum standards for various source categories on the national level. However, as we will discuss, there have been implementation problems created by EPA related to these provisions of the CAA as well.

The structure of the Act has led to some frustratingly inefficient aspects of its implementation including the inability of EPA to integrate strategies for multiple pollutants as well as consider rational energy policy while doing so. The structure of the Act is outdated in its attempts to address cross-state transport of pollution. The current aggressive schedules for NAAQS reviews, State Implementation Plan (SIP) development and promulgation of Maximum Achievable

Control Technology standards are significant problems. Taken together, these inefficiencies are a resource drain on EPA, the states, the regulated community and the economy as a whole.

What is not working well is the independent implementation of regulatory control programs rather than the integration and synchronization of multiple objectives. Many sources of air pollution emit more than one pollutant subject to regulation under the Clean Air Act. A single pollution control device may control multiple air pollutants, and the traditional approach to regulation of pollutants has proceeded independently for each pollutant in determining the level of regulation, the type of control requirements, and the timing of such regulatory requirements. Moreover, the traditional approach to the regulation of these pollution sources may lead to control strategy decisions that might vary significantly in cost, efficiency, and type. As a result, a well-designed multi-pollutant strategy has the potential to improve the ability of the sources to control environmental pollutants in a manner that facilitates efficiency, competitiveness, and cost savings while significantly reducing environmental impacts and provides industry with certainty and the ability to plan for the future. This coordinated approach could lead to greater environmental gains than would be achieved under the existing provisions of the Clean Air Act and could create greater opportunities for pollution prevention and sustainability. This approach could also recognize the timing of installations, economic impacts, co-benefits of controls as well as provide for certainty necessary for companies to be willing to make investments in the United States and create jobs. Consequently, it is important that EPA work with States to develop a cost-effective, efficient, and environmentally protective approach to implementing a multi-pollutant strategy for the regulation of the stationary sources.

It is critical that EPA recognize how implementation of a revised particulate matter NAAQS in Pennsylvania will be affected by the implementation of other NAAQS, as well as specific federal regulatory requirements including the Mercury and Air Toxics Standards and programs addressing interstate transport in the Eastern United States. If industry is given the ability to integrate schedules for investment, the country can achieve the needed environmental improvements more cost effectively. The good news is that the electric generating sector already has significantly reduced, and, over the next several years, will continue to reduce NO_x and SO₂, precursors to the formation of fine PM and regional haze. Most of the monetized benefits (health benefits) that will be realized by those programs are through reduced exposure of people and the environment to fine PM and its precursor emissions. EPA should continue to recognize that progress by ensuring states can integrate compliance schedules for those rules and for the 1-hour NO₂ and SO₂ NAAQS into the implementation for the PM NAAQS.

Given the unique combination of the resource constraints imposed by the economic challenges that many states currently face and the challenge of navigating the requirements of the myriad of new standards and regulations to be implemented over the next several years, like the Mercury Air Toxics Rule, the Regional Haze Program and others, it is absolutely critical for EPA to integrate the compliance schedules of these inter-related initiatives whenever possible. EPA should also recognize that compliance with the revised PM_{2.5} standard may result from the ancillary benefits from these programs, many of which will provide emission reductions that will help to reduce PM_{2.5} concentrations.

An example of the disjointed compliance schedule would be implementation of the Section 126 petition for the Portland Generating Station. The residents of Pennsylvania would realize some public health and environmental benefits from measures implemented to reduce maximum allowable SO₂ emissions at the Portland Generating Station as a result of a Section 126 petition. However, DEP believes that the compliance schedule containing increments of progress for the Section 126 petition established by EPA are premature as they are not harmonized and coordinated through the SIP process rather than through litigation. We believe that the SIP process would allow GenOn adequate time under the existing framework of the CAA to make a reasoned decision on the long-term viability of the Portland Plant.

It is also critical in the implementation of a revised NAAQS that EPA recognize that following the implementation of these programs, emission reductions from traditionally regulated stationary sources will be essentially “tapped out.” It will be a challenge for both EPA and the states to assess emission sources for cost-effective emission reductions to solve remaining nonattainment problems. Many of these nontraditional emission sources may be mobile sources not within the authority of state and local governments to regulate.

EPA should not make attaining and maintaining the NAAQS more difficult for states by allowing unnecessary emission increases in precursor emissions. A prime example is the increase in NO_x emissions that would result if EPA finalizes proposed changes to the National Emission Standards for Hazardous Air Pollutants for Reciprocating Internal Combustion Engines; New Source Performance Standards for Stationary Internal Combustion Engines (77 FR 33812, June 7, 2012) (RICE MACT rule) to increase the hours that non-emergency generation may be used for peaking generation. The additional operation of distributed diesel engines as part of demand response and peak shaving operations can significantly affect local and transported air quality.

The Department also has concerns with how EPA is using the CAA to establish national energy policy. For instance, on April 13, 2012, EPA proposed the Standards of Performance for Greenhouse Gas Emissions for New Stationary Sources: Electric Utility Generating Units. 77 Fed. Reg. 22392. EPA admits that there are no environmental benefits from this proposed rulemaking, based on the assumption that no new coal plants would be built in future years even in the absence of this proposed rule.

The purpose of this proposed rule is clear—to drive all new fossil fuel-fired facilities that might be built in the future to a particular forced technology -- a technology that is not commercially viable or proven on a broad scale at this time: carbon capture and storage (CCS). This is a prime example of the inappropriate practice of federal energy policy being driven by environmental regulation. Such a major energy policy as is embodied in this proposed rule should be left to Congress, not the federal EPA acting preemptively. Any GHG NSPS requirement should be implemented as we proposed in our comments. Specifically the limits should be set based on fuel type, what is currently achievable by the most current technologies and allow CCS to be required when it becomes commercially available and economically viable as Best Available Control Technology (BACT). In the EPA proposal the commercially available and economically viable components are not considerations.

Even as energy policy, the proposed rule is not on the right track. since it picks winners and losers and has the effect of directing future near-term investment decisions for electric generation by diminishing coal generation investments and stimulating natural gas-fired electricity generation. This limits the nation's future potential energy sources by implementing environmental regulations and conceptual changes to the regulatory process that preclude the opportunity to use coal, or natural gas with a future re-proposed NSPS for that matter, as a source of future electricity generation.

In past NSPS rulemakings for power plants, EPA has set either different performance standards for each specific type of fuel burned (e.g., coal, oil, natural gas) or a single performance standard for all fuels based on the emissions control levels achievable through application of the "best demonstrated technology" at all power plants, regardless of the fuels used. The latter is identified as being a "fuel neutral" standard because it can be met by the highest emitting fuel, properly controlled, and by other fuel types with inherently lower emissions. However, this proposal is not "fuel neutral" as it precludes the consideration of one of the fuels being considered because the specified control technology is simply not available at this time.

Development of the NAAQS on an interval of five years (Section 109(d)(1)) has created significant resource burdens for both EPA and the states. Furthermore, the cascading standards can create confusion for the public because states and EPA continue to work on State Implementation Plan (SIP) revisions, determinations of attainment for one standard, while the Air Quality Index is based on another. NAAQS review intervals should be lengthened to 10 years. The requirement for an "infrastructure" SIP within three years of a NAAQS should be reconsidered, and consistent schedules for SIP submission and attainment dates for all pollutants should be established, rather than the patchwork that now exists in the Act.

Do state and local governments have sufficient autonomy and flexibility to address local conditions and needs?

In general there is sufficient autonomy and flexibility to address local conditions and needs under the CAA. The CAA employs a "cooperative federalism" approach to implementing the NAAQS. Under that approach, EPA sets the NAAQS, but the States have primary responsibility for implementing NAAQS through individual, State-specific regulatory programs. EPA has, on occasion, driven outcomes that were inappropriate. For example, currently there is a case in front of the U.S. Court of Appeals for the 3rd Circuit entitled *GenOn Rema, LLC v. U.S. EPA* where one of the issues is whether EPA exceeded its statutory authority by mandating the installation of certain controls at a coal-fired power plant in Pennsylvania before Pennsylvania had an opportunity to satisfy its obligation to implement that standard under the CAA's cooperative federalism structure.

The US District Court recently agreed with the position taken by DEP and other states in its comments on the Cross-State Air Pollution Rule (CSAPR), wherein EPA promulgated a Federal Implementation Plan prematurely. This type of action by EPA clearly flies in the face of historical implementation of the CAA and, as such, was one of the reasons that this transport rule was vacated by the US Court of Appeals for the DC Circuit. The Court found that EPA

overstepped its legal boundaries under the cooperative-federalism mandates of the Act. Should this opinion prevail, the path that EPA must follow in future rulemakings will be clear.

Note that autonomy and flexibility without adequate resources is not necessarily a blessing. Obligations to the states should be consistent with the funding provided to the states.

Does the current system balance federal, state, and tribal roles to provide timely, accurate permitting for business activities, balancing environmental protection and economic growth?

Yes the current system itself works well. It has enabled states like Pennsylvania to manage its air permitting program to fit its own needs and to coordinate permits under various state and federal laws, for example, with our recent Permit Decision Guarantee program.

However, EPA's recent regulations themselves do not often strike the right balance between environmental protection and economic growth. Furthermore, extensive and continual litigation and a number of regulatory remands of these rules mean uncertainty for the regulated community.

Permitting is not the issue, but rather EPA's failure to consider the timing and integration of its regulations. Air rules pose some of the most vexing challenges to today's industry. The alphabet soup of rules (CSAPR, MACT, NSR, etc.) impact everything from daily operations to long-term capital planning and management. Unclear language and frequent court challenges lead to confusion and uncertainty over compliance timelines and optimum ways to integrate multiple technologies into an industrial facility. Failure to comply can be onerous as multiple special interest groups and federal agencies are prepared to pounce on non-compliers. Moreover, this failure to integrate operations puts U.S. industry at a competitive disadvantage because industry cannot properly adjust its capital expenditures budgets when these rules come out at once.

EPA's Boiler MACT (Maximum Achievable Control Technology) standards are so strict that not even the best-performing sources can meet them, so many companies will have no choice but to shut their doors and ship manufacturing jobs overseas. The rule has been projected to reduce U.S. GDP by as much as \$ 1.2 billion and destroy nearly 800,000 jobs.

EPA's Cement MACT rule could cause 18 plants to shut down, throwing up to 80,000 people out of work. As more and more cement has to be imported from China, concrete costs for the construction of roads, bridges, and buildings that use cement could increase 22% to 36%. As with Boiler MACT, due to Congressional opposition, EPA is now reconsidering certain aspects of the rule.

Because "major modifications" to major stationary sources trigger a requirement for NSR, with the potential for new emissions limits and construction and operational requirements, there is a disincentive to modernize or otherwise improve the efficiency and competitiveness of power plants and industrial facilities. Because modernization could improve the environmental performance of those plants and facilities, the NSR Program can undermine the goals of the Clean Air Act. Moreover, because power plant, refinery and other facility owners have been subjected to EPA (and state) enforcement actions on account of what these owners thought was routine maintenance, repair or replacement activities, the NSR Program has become a

disincentive to some best maintenance practices, with facility operations and reliability suffering as a result.

The Utility MACT is another instance in which the environmental and health benefits do not justify the costs. The EPA claims this rule would produce \$37 to \$90 billion in annual benefits, but the mercury reductions would produce, at most, \$6 million in benefits. The EPA exaggerates the environmental benefits by including estimated benefits from reducing a fine particulate precursor (co-benefit) already regulated by other existing regulations. Those co-benefits account for 99.996 percent of the agency's estimated benefits.

On September 9, 2010, EPA promulgated New Source Performance Standards for conventional pollutants from new cement kilns and Maximum Achievable Control Technology for hazardous air pollutants from both existing and new cement kilns. When fully implemented in 2013, the standards will require a 92% reduction in emissions of both particulate matter and mercury and a 97% reduction in emissions of acid gases, according to EPA, as well as controlling other pollutants. EPA had previously issued emission standards for this industry in 1999, but the standards were challenged in court and remanded to the agency by the D.C. Circuit Court of Appeals. The new rules reflect EPA's reconsideration of the standards. The agency estimates that it will cost the industry \$350 million annually to comply with the standards, but benefits (including the avoidance of 960 to 2,500 premature deaths in people with heart disease) will be worth \$6.7 billion to \$18 billion annually. The trade association representing the industry says the standards will cause some facilities to close. On December 9, 2011, the D.C. Circuit Court of Appeals remanded the 2010 standards to EPA for the agency to reconsider emission standards for kilns that use solid waste as fuel. The court did not stay implementation of the 2010 standards, but EPA, in proposing changes to the particulate portion of the standards on June 25, 2012, announced its intention to provide the industry additional time to comply.

Further regulation of this industry, which is the third highest stationary U.S. source of carbon dioxide emissions, is under consideration: when EPA promulgated the rule in September 2010, it stated in the preamble to the rule that it is "working towards a proposal for GHG standards" for these plants.

Does the CAA support a reasonable and effective mechanism for federal, state, tribal, and local cooperation through State Implementation Plans? How could the mechanism be improved?

In general, the statutory mechanisms related to SIPs are fine. Section 110(k)(2) of the CAA obligates EPA to approve or disapprove a SIP revision within 12 months after it is determined or deemed a complete SIP submittal. The problem comes with the implementation of those statutory mechanisms. EPA repeatedly fails to timely approve SIPs. Failure to approve these SIPs in a timely fashion invites uncertainty into the regulatory process. For example, both Sierra Club and the WildEarth Guardians sued EPA over its failure to approve or deny state air pollution control plans affecting more than 20 states to control PM-2.5. *See e.g., WildEarth Guardians v. Jackson*, N.D. Cal., No. 3:11-cv-00190; *Sierra Club v. Jackson*, N.D. Cal., No. 3:10-cv-04060). The groups also sued EPA for failure to promulgate federal implementation plans after finding 12 states failed to submit complete SIPs for the ozone standards. The states

are Alaska, Arizona, Arkansas, Florida, Georgia, Hawaii, Idaho, Maryland, North Dakota, Oregon, Virginia, and Washington.

As important, EPA fails to provide implementation rule and guidance to states on a timely basis. Meanwhile, the statutory clock for SIP revisions and attainment ticks on.

Are cross-state air pollution issues coordinated well under the existing structure?

No. The CAA contains only vague language which leads to imprecise implementation by EPA and Section 126 petitions. This is not an effective use of state resources. The Cross-State Air Pollution Rule is the perfect example. The North American Electric Reliability Corporation estimated this rule alone would compel companies to retire 3 GW to 7 GW of electricity generation and retrofit 28 to 576 plants. Power companies filed dozens of lawsuits challenging the rule and warned that the rule, if ever implemented, would cause dramatic increases in electric costs and possibly lead to rolling blackouts. Even the Federal Energy Regulatory Commission (FERC) warned that the CSAPR rule threatened grid reliability.

The EPA is ignoring the remarkable achievements in reducing NO_x and SO₂ emissions over the past four decades. These advances are largely the result of market-driven technologies, but existing regulations have contributed. Since 1970, coal power plants have reduced SO₂, NO_x, and PM emissions by 84 percent per kilowatt hour. However, the industry has reached a threshold where the additional emissions reductions are marginal and may not justify the costs. The EPA's cost estimates are conservative, and its projected health benefits are wildly exaggerated. The EPA approximates annual compliance costs with CSAPR will be \$7 billion annually and monetized health benefits will be from \$111 billion to \$294 billion annually.

Yet the benefits were never empirically substantiated. The EPA used outrageous worst-case scenarios, ignored state and local emissions controls, used outdated data, and models air quality problems using emissions data that contradict actual monitored readings. In other words, additional regulation of EGUs is unnecessary because significant reductions have already been achieved. Further reductions to address interstate transport would most effectively come from mobile sources, mostly a responsibility of EPA.

Are there any other issues, ideas or concerns relating to the role of federalism under the CAA that you would like to discuss?

The Clean Air Act has worked very well as a model of cooperative federalism. Enormous progress has been made. It is imperative, based on recent health studies, that the nation not stray from the intended purpose of the Clean Air Act to protect public health for all communities and individuals. The federal government should also continue to implement the Act with sensitivity to the economy and with reasonable flexibility to address the different circumstances that exist between regions. In addition, we wish to emphasize the need for federal help in reducing emissions from sources subject to federal control, whether through incentives or regulation.

However, Pennsylvania has recently seen an intrusion by EPA in areas that are historically state programs like the regulation of oil and gas development, despite the fact that Pennsylvania is adequately managing this issue.

Pennsylvania's natural gas extraction has dramatically increased over the past few years; we are delivering huge amounts of inexpensive clean fuel to Americans. We, because of our ability to know our state, and have the ability to regulate and oversee the safe conduct of this activity within our state better than EPA. The Department has a robust set of air quality regulations that ensure that the air is protected, while the natural gas resource is extracted safely and in a timely manner.

Actual extraction operations are subject to a host of existing permitting requirements. Those permit requirements, whether a general permit or an individual permit, require the use of technologies that control air emissions. DEP took the proactive step of launching a short-term ambient air quality sampling initiative in the southwest, northeast and northcentral regions of Pennsylvania in April 2010. This initiative focused on natural gas extraction stages including drilling operations, fracking operations where wastewater was being produced, the flaring of gas for production, and gas compression facilities.

Although concentrations of certain natural gas constituents were detected, DEP did not identify concentrations of any compound that would likely trigger air-related health issues associated with Marcellus Shale drilling activities. DEP also tested for carbon monoxide, NO₂, SO₂ and ozone, but did not detect concentrations above the NAAQS at any of the sampling sites. DEP is currently developing a protocol for a long-term sampling effort. Additionally, DEP has the authority to develop a comprehensive emissions inventory. Such data will allow the Department to develop an accurate inventory to support air quality planning activities including SIPs to achieve and maintain the health-based federal standards such as ozone, fine PM and the recently promulgated short term NO₂ and SO₂ standards.

Based on those short-term studies, the PA DEP is conducting an ambient air study to determine any chronic or long-term risks to the public from individual or multiple shale gas sources. The study is taking place in the southwestern portion of the state due to the "wet" nature of the gas in that region, meaning the presence of some other volatile organic compounds in the gas stream besides methane.

EPA needs to remember that Congress directed that states have the primary responsibility for plans and programs for clean air, and EPA is to play primarily an oversight role. Congress was not only upholding the Constitution but ensuring that all levels of government make best use of the resources available to them to implement the Act.