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The Clean Air Act: Reform Proposals

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Key Points

- Congress should exercise authority to approve all major rules approved by EPA and required third-party reviewed regulatory impact analyses.
- Clearly re-affirm and extend the CAA's original allocation of federal and state authorities in law.
- Regulation using performance standards based on measurable results are the most effective and cost-efficient.
- Science is a critical tool in managing air quality but is easily politicized when developed and applied by government.
- EPA's bureaucratic silos impede environmental improvement and create massive administrative burden for state government. EPA's structure and programs should incorporate the multi-pollutant strategies and process.

The CAA gave broad discretionary authority to EPA to make what are now decisions jeopardizing the health of the entire economy and the livelihoods of real people, with sharply regressive impacts on low-income families. Rising food and energy prices, coupled with high unemployment, have pushed poverty rates to the highest levels in 52 years. Morbidity (illness) and shortened lifespan (premature mortality) are far more directly correlated with poverty and unemployment than with air quality.[1]

There is no readily available means of legally restraining the EPA's unprecedented regulatory spree. Unless the EPA's authority is limited by amendments to the CAA, the courts have sparse legal ground to restrain the Agency. And many states now must devote finite resources to challenging the EPA's encroachment on fundamental state authority rather than tending to the hands-on job of protecting air quality.

Adding urgency to the matter is the National Academy of Science's recent conclusion that the EPA's science—the purported foundation of the Agency's regulatory decisions- "is on the rocks." The recommendations that follow address widely recognized problems that are the subject of legal challenges to the EPA's actions in hundreds of lawsuits. If the CAA is to guide a broadly supported and effective response to the air quality challenges of the future, meaningful reform is essential.

I. Restore Congressional Authority and Accountability

As articulated in federal law, the definition of healthy air is a matter of policy for the elected branches of government. In the CAA, the Congress delegated this responsibility to the EPA in the belief that objective experts would make rigorous scientific decisions. Science under the aegis of government employees, however, is easily politicized. The current EPA misuses science to propagandize the need for ever-stricter regulatory mandates.[2] While science should critically inform government decisions about air quality requisite to protect human health, science is inherently incapable of dictating the final policy decision. Such decisions involve a complex balancing of interests, risks, costs, diverse benefits, claims of effectiveness, and inherent scientific uncertainties.

When Congress has given the EPA specific statutory orders through amendments to the CAA, instead of general direction about healthy air, the environmental outcomes have been superior. Indeed, the most effective federal air quality programs to date were stipulated by Congress in the Clean Air Act and not left to EPA's discretionary designs. Congress not only created the programs but specified the extent of emission reductions, time tables, and bearers of the burdens. Further, Congress provided for regulatory flexibility through market-like mechanisms for emission trading. These programs were: the acid-rain program, which cut relevant emissions by 50 percent; elimination of lead in gasoline; new engine standards which cut 99 percent of three criteria pollutants from tailpipe emissions; and the stratospheric ozone program.[3] Flexible regulatory mechanism combined with clear regulatory goals for measurable environmental benefits work best.

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The EPA's micro-management of state authorities impedes efficient management of air quality.

To restrain the EPA's over-reaching actions, the Congress should:

- **Reclaim the legislative authority delegated to EPA to set the federal air quality standards for the criteria pollutants and the emission limits for hazardous pollutants.** The Supreme Court has found that "It is axiomatic that an administrative agency's power to promulgate legislative regulation is limited to the authority delegated by Congress."[4] What authority Congress has delegated, Congress can reclaim.

- **Exercise authority to approve all the major rules proposed by EPA.** The Regulation of Executives in Need of Scrutiny Act (REINS), already passed by the House of Representatives, should become law. So as to sidestep the prospect of legislative veto and make up for the weakness of the Congressional Review Act, the REINS Act requires bicameral approval with presentment to the President of all "major" or "economically significant regulation." REINS also imposes an expedited procedure for congressional decision to avoid political roadblocks.

- **Require annual advisory reports that contain cumulative regulatory impact analyses of risk, cost, effectiveness, and benefits, based on a methodology and scope determined by Congress and conducted by a third party.** The Transparency in Regulatory Analysis of Impacts on the Nation Act (TRAIN), already passed by the House of Representatives should also become law. EPA should function in a far more advisory and less regulatory role. To inform Congressional decision, Congress could require EPA to submit annual or bi-annual reports that contain stipulated information, data, types of studies on health impacts, air quality data, progress reports, risk assessments, priority risks, and alternative implementation strategies. Numerous bills filed in the 112th Congress would require far more comprehensive and regulatory impact analyses including impact on jobs, electric rates, electric reliability, U.S. competitiveness as well as cumulative impacts of multiple regulations.[5] For example, the increased electric rates projected as a result of EPA's rules affecting electric generation would have harshly regressive impacts on low-income families.[6] The nature and scope of what counts as a regulatory benefit must be defined to prevent EPA from transforming minute statistical associations into human deaths.[7]

II. Restore State Authority

The EPA's micro-management of state authorities impedes efficient management of air quality. A 2004 National Research Council study concluded that the inflexibility and complexity of the State Implementation Plan (SIP) process imposed on states is counter-productive. According to the Council, "The process now mandates extensive amounts of time and resources in a legalistic, often frustrating proposal and review process, which focuses primarily on compliance with intermediate process steps. This process discourages innovation and experimentation at the state and local levels; overtaxes the limited financial and human resources available to the nation's [air quality management system] at the state, local and federal levels; and draws attention and resources away from the more germane issue of ensuring progress towards the goal of meeting the NAAQS."[8] The NRS reached this conclusion in 2005 and yet no actions to date have been taken to streamline the SIP process.

The original CAA wisely asserted that "prevention and control of air pollution is the primary responsibility of the States and local government," because those closest to resources are best able to effectively manage them.[9] EPA, however, increasingly treats state agencies as instruments of federal government rather than as partners, much less equal sovereigns. Under the current regime, the states have the responsibility, on pain of sanctions, to do whatever EPA dictates.

Recent federal court decisions have sharply rebuked EPA for denial of state authority in rulings upholding the original CAA's strict division of authority between federal and state governments. In a complete vacature of the Cross State Air Pollution Regulation (CSAPR), the D.C. Court of Appeals noted: "Under the Clean Air Act, the Federal Government sets air quality standards, but the States retain primary authority … for choosing how to attain those standards within their borders."[10]

To re-establish state authority, Congress should:

- **Clearly re-affirm the CAA's original allocation of federal and state authorities in law.** As stated in 1977, "Congress carefully balanced State and national interests by providing for a fair and open process in which States and local governments, and the people they represent, will be free to carry out the reasoned weighing of environmental and economic goals and needs."[11] The EPA has obviously strayed from this statutory framework. Congress should forcibly restate the CAA's original allocation of federal and state powers in the CAA.

- **Abandon the current State Implementation Plan process.** SIPs now must contain a mass of information: elaborate emission inventories, reams of photochemical modeling runs, and accounts of all control measures needed to attain the NAAQS in question. States must complete separate SIPS for each criteria pollutant and other federal programs, none of which are coordinated although all data and programs are interconnected. EPA micro-manages each step of the increasingly cumbersome process in which administrative requirements take precedence over creative, effective state actions to attain the federal standards. The SIP process must be abandoned or greatly simplified.

- **Eliminate the EPA's authority to disapprove of State Programs.** Through SIP approval authority, the EPA asserts command and control authority over state governments. If EPA now disapproves a state program considered a required component of the SIP, EPA can take over the state authority through a Federal Implementation Plan (FIP), freeze road constructions and withhold highway funds owed to the state. The Supreme Court's recent ruling in the Patient Protection and Affordable Care Act, which overruled unconditional pre-emption as an unconstitutional commandeering of state government, may be applicable to the CAA.[12]

- **Rescind the EPA's authority to compel state actions.** With primary authority under the CAA to implement federal standards, States should be entitled to choose whether to seek EPA counsel on air quality management. EPA's guidance, however, should not be binding, nor should every state regulation be subject to EPA approval. States may elect to form regional interstate compacts to combine resources or to address interstate air quality issues as several state legislatures already have done.[13]

III. Encourage Performance Standards: Monitors Trump Models

EPA's implementation of the CAA increasingly emphasizes command of administrative process and dictate of the means of production at the expense of achieving measurable and meaningful environmental benefits. And after four decades of prescriptive emission standards, air quality regulation should emphasize historically successful performance standards that focus on concrete, measurable environmental results.

Congress should require that the EPA:

- **Use Performance Standards based on measurable results.** Performance standards require objective, measurable results of *what* must be achieved in lieu of rigid, complex requirements that dictate *precisely how* the entity will operate and *certify compliance*. Performance standards allow more flexibility in operation, maximizing the incentives of property rights and site-specific adaptation. The permit holder may choose how to operate and even expand production as long as the standard is met. Performance standards include plant-wide emission caps, emission trading schemes, and other systems that incorporate market-like mechanisms and property rights. Cap and trade schemes may work for some traditional pollutants, but the trading system must be carefully designed to minimize pitfalls typical when government creates and manages a market. Continually changing the rules of the market and price controls undermine market dynamics.

IV. Restore Objective, Rigorous, Transparent Science

EPA justifies its regulatory actions on what it construes as scientific edicts. Yet scientific findings, inherently incomplete and uncertain, are incapable of weighing the complex policy considerations that shape the law in a democracy. Unless the CAA stipulates criteria to assure rigor and objectivity in the EPA's risk assessments, regulatory excess cannot be restrained.[14]

When objective, transparent, and rigorous in accordance with the scientific method, scientific knowledge provides a critical tool to inform final regulatory decisions.

Science offers both the promise and the demise of meaningful management of air quality to protect human health. But when developed and applied by a government body, science is easily manipulated to justify a predetermined policy preference.

When objective, transparent, and rigorous in accordance with the scientific method, scientific knowledge provides a critical tool to inform final regulatory decisions. Scientific findings are, however, categorically different than policy judgments based on reasoned weighing of societal tradeoffs and relative risks. The wide body of environmental science existing today should inform the major regulatory decisions under the CAA but never dictate policy decisions about air quality. The more substantive scientific disciplines, such as toxicology, must be given prominence over the purely statistical sciences such as ecological epidemiology.

To restore objective, rigorous, and transparent science, Congress should:

- **Mandate that regulatory actions be supported by third party, peer-reviewed analysis of cost-benefit-effectiveness.** The CAA requires that ambient air quality standards must be protective of public health with an adequate margin of safety—*regardless of cost*. EPA increasingly uses this statutory rubric to legitimize unachievable regulatory mandates as if no risks were too low and no costs too high. For decades, EPA has adopted increasingly stricter NAAQS that now approach naturally occurring, thus unpreventable background levels. When objective and comprehensive cost-benefit-effect analyses can provide critical information to policy makers and would check the implausible charade of the current EPA's regulatory justifications.

- **Include cost in determination of NAAQS.** The CAA should acknowledge that consideration of the cost to society is a necessary, valuable and unavoidable factor.

- **Reject the no-threshold linear regression model to impute risk.** EPA implausibly now assumes that a positive, linear, no-safe threshold (causal) relation exists between any concentration of a pollutant above zero and risk of premature death. Piling assumption upon assumption, EPA attributes a 100 percent probability—and thus certainty—to the premise that there is no ambient level at which human health is adequately protected. This statistical methodology has enabled EPA to calculate health benefits far surpassing regulatory costs. When, in 2009, EPA began extrapolating risks at natural background levels of fine particulate matter (PM 2.5), the number of mortality risks EPA attributed to this pollutant almost quadrupled from 88,000 to 320,000 deaths. [Footnote 16 and see also Anne Smith, Ph.D. "An Evaluation of PM 2.5 Health Benefits for Regulatory Impact Analysis of Recent Air Regulations," NERA (Dec. 2011) and Louis Anthony (Tony) Cox, Jr., "Reassessing Human Health Benefits from Clean Air," Risk Analysis (Nov. 2011)]

- **Abandon absolutist version of the precautionary principle.**[15] Vague statistical correlations between death rates and pollutant levels cannot be transformed into causal connections. Costs and political interests invariably affect EPA's decisions, but the law's absolutist terms shield EPA's pretensions from judicial scrutiny. The CAA should acknowledge that consideration of the cost to society is a valuable and unavoidable factor.

- **Establish minimal criteria for scientific risk assessment of health effects.** Many scientific bodies have harshly criticized the weakness of EPA's current science. The National Academy of Science, National Research Service, and EPA's own Scientific Advisory Board, Board of Scientific Counselors and the Clean Air Act Advisory Council voice grave concerns about the integrity of the science upon which EPA now relies. Dr. Thomas Burke, chairman of a recent National Academy of Science (NAS) review panel on EPA's chemical risk assessment told EPA officials that "EPA science is on the rocks … if you fail, you become irrelevant, and that is kind of a crisis."[16] EPA's chemical risk assessment for formaldehyde set the health-effects level several times lower than the natural level of formaldehyde in human

exhalation.[17] Minimal criteria for health-effects risk assessment would include the following:

- EPA's health effects studies must be peer-reviewed by an independent body.
- Toxicological studies and clinical trials demonstrating a causal connection between pollutant exposures and health effects carry more weight than ecological epidemiological studies indicating statistical correlations.
- Health based standards must incorporate average exposure and not implausibly assume that all people are exposed to the highest monitored level 100 percent of the time.
- Physical measurement through monitored readings trumps models.
- Health-effects findings must include a plausible biological mechanism.
- EPA's risk assessments must be judicially reviewable under a clear standard of plausibility and rigor.

V. Multi-Pollutant Strategies by States

Most of the criteria pollutants and many hazardous pollutants share sources, precursors and control strategies. A single, flexible management plan with integrated strategies to reduce multi-pollutants could facilitate cost-effective results. State and local authorities are far better situated than EPA to devise and implement effective multi-pollutant plans.

To achieve this, Congress must:

- **Allow states to develop multi-pollutant strategies.** The current SIP process should be replaced by a single integrated multi-pollutant plan devised by states. Such a comprehensive management plan should encompass both criteria pollutants and select hazardous pollutants.
- **Re-evaluate priorities for research and regulatory programs.** After 40 years of all but exclusive focus on criteria pollutants and attainment of the NAAQS through the SIP process, EPA should focus more on select hazardous emissions in localized areas. Now that the criteria pollutants affecting urban areas across the country have been substantially reduced, EPA's predominant emphasis on the NAAQS is no longer justified. EPA should prioritize health risks in localized areas among the 189 hazardous chemicals stipulated by Congress in the 1990 amendments to the CAA.
- **Breakdown EPA's bureaucratic silos to allow for integrated strategies.** Acting under an organizational structure modeled on the statutory structure of the CAA enacted in the 1970s, EPA promulgates individual federal air quality standards (NAAQS) for each of the six criteria pollutants in administrative silos. EPA similarly compartmentalizes the national emission standards (NSPS) for hazardous air pollutants, permitting regimes and other programs. And the air, water and waste programs operate independently, as if hermetically sealed from each other. Yet, air pollutants, water contaminants and waste issues are all interconnected. EPA's bureaucratic silos impede environmental improvements and create massive administrative burdens for state and local governments.

Conclusion

Enacted more than 40 years ago, the architecture of the CAA imposes a militaristic, top-down approach to administrative process and regulation. As a founding trustee of the Environmental Defense Fund noted as early as 1988, "The EPA's regulation has grown to the point where it amounts to nothing less than a massive effort at Soviet-style planning of the economy to achieve environmental benefits."[18]

After elimination of massive volumes of air contaminants over the last 20 years, the usefulness of the existing CAA's traditional procedures and regulatory tools is increasingly questioned. That the CAA needs reform is a belief widely shared, at least outside of the EPA and activist organizations. A four-year project enlisting the input from 40 environmental experts from across the ideological spectrum concludes that the CAA has "statutory arteriosclerosis."[19]

Endnotes

[1] Eugene M. Trisco, "Energy Cost Impacts on American Families 2010-2012 for American Coalition for Clean Coal Energy."
[2] Kathleen Harnett White, "EPA's Pretense of Science: Regulating Phantom Risks," Texas Public Policy Foundation (May 2012).
[3] David Schoenbrod and Melissa Witte, "Statutory Arteriosclerosis: Should the EPA set an air quality standard for greenhouse gases? And why the arguments to the contrary prove the Clean Air Act is obsolete," *The Environmental Forum*, Vol. 28, No. 5 (Sept./Oct. 2011).
[4] *Bowen v. Georgetown Univ. Hosp.*, 488 U.S. 204 (1988).
[5] H.R. 10, S.299, Regulations from the Executive in Need of Scrutiny Act ("REINS") Act (2011); H.R. 2401, Transparency in Regulatory Analysis of Impacts on the Nation Act ("TRAIN") Act (2011); S.602, Clearing Unnecessary Regulatory Burdens ("CURB") Act (2011); S.1030, Freedom from Restrictive Excessive Executive Demands and Onerous Mandates ("FREEDOM") Act (2011); S.358, Regulatory Responsibility for Our Economy Act (2011); S.1189, Unfunded Mandates Accountability Act of 2011 (2011); H.R. 527, Regulatory Flexibility Improvements Act (2011); S.474, Small Business Regulatory Freedom Act (2011).
[6] U.S. Bureau of Labor Statistics, Consumer Expenditure Survey 2009 (Oct. 2010).
[7] White, *supra*, note 14.
[8] National Research Council of the National Academies, Air Quality Management in the United States (Jan. 2004).
[9] Air Pollution and Control Act of 1967, Pub. L. No. 90-148, {2 84 Stat. 485, 485 (enacting 101(a)(3)) (codified as amended at 42 U.S.C 7401(a)(3)).
[10] *EME Homer City Generation, et al. v. Environmental Protection Agency*, 2012 U.S. App. LEXIS 17535 *62 (D.C. Cir. Aug. 21 2012).
[11] H.R. Rep. No. 95-294, at 46 (1977).
[12] Jonathan H. Adler, "Could the Health Care Decision Hobble the Clean Air Act?" *The Percolator* (July 2012). http://percolatorblog.org/2012/07/23/could-the-health-care-decision-hobble-the-clean-air-act/
[13] H.B. 2545, 82nd Leg. Sess. (Texas 2011).
[14] Michael Honeycutt, Ph.D., Texas Commission on Environmental Quality, "Comments Regarding the Primary National Ambient Air Quality Standards for Ozone and PM, and the Utility MACT" (4 Oct 2011). http://science.house.gov/sites/republicans.science.house.gov/files/documents/hearings/100411_Honeycutt.pdf.
[15] Indur M. Goklany, *The Precautionary Principle: A Critical Appraisal of Environmental Risk Assessment* (Cato 2001).
[16] White, *supra*, note 14.
[17] Michael Honeycutt, Ph.D., Texas Commission on Environmental Quality, "Comments Regarding the Use of Science in, and Implications of, EPA's Chemical Risk Assessments" (4 Oct. 2011). http://republicans.energycommerce.house.gov/Media/file/Hearings/Environment/100611/Honeycutt.pdf.
[18] David Schoenbroad, *Saving Our Environment from Washington*, 244 (Yale 2005).
[19] Schoenbroad, *supra*, note 3.

About the Author

Kathleen Hartnett White joined the Texas Public Policy Foundation in January 2008. She is a Distinguished Senior Fellow-in-Residence and Director of the Armstrong Center for Energy & the Environment.

Prior to joining the Foundation, White served a six-year term as Chairman and Commissioner of the Texas Commission on Environmental Quality (TCEQ). With regulatory jurisdiction over air quality, water quality, water rights & utilities, storage and disposal of waste, TCEQ's staff of 3,000, annual budget of more than $600 million, and 16 regional offices make it the second largest environmental regulatory agency in the world after the U.S. Environmental Protection Agency.

Prior to Governor Rick Perry's appointment of White to the TCEQ in 2001, she served as then Governor George Bush appointee to the Texas Water Development Board where she sat until appointed to TCEQ. She also served on the Texas Economic Development Commission and the Environmental Flows Study Commission. She is now serving in her fifth gubernatorial appointment as an officer and director of the Lower Colorado River Authority.

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