

BACKGROUND

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The Assault on Coal and American Consumers

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Abstract

For decades, coal has literally been the rock that has powered America with cheap, reliable energy. Yet the federal government is using every possible avenue to reduce coal's role in American energy production by creating an environment in which coal production's decline is inevitable. Congress should reform federal policies and regulations to enable the market—not federal politicians and bureaucrats—to determine the role of coal in U.S. electricity generation. This includes repealing, preventing, or freezing unnecessary regulations and empowering the states to appropriately balance economic growth and environmental protection.

Used to power nearly half of all electricity generation for years, coal is the single largest electricity source in America. With 497 billion tons of recoverable coal in the United States—enough to provide electricity for 500 years at current consumption rates—coal has the potential to be an important resource long into the future.¹ Regrettably, the Obama Administration has taken actions that significantly reduce coal's share of America's energy portfolio now and in the future. The proposed and newly implemented regulations affecting coal will drive up energy costs for Americans and business owners and destroy jobs, but do little to protect the environment. These regulations will not only drive up the costs of goods and services that promote public health, such as access to affordable heating and air conditioning, but also divert resources away from activities that could truly improve America's public health. They are based on a weak scientific foundation and would significantly increase compliance costs for existing coal plants and effectively bar construction of new ones, which will increase the cost of electricity for consumers and business.

The attempt to drive coal out of America's energy portfolio goes even

KEY POINTS

- Coal is America's largest source of electricity generation, and given the amount of U.S. coal reserves, could be a critical source of affordable, reliable energy for years to come.
- Coal is under regulatory attack from all angles. Proposed and newly implemented regulations on existing plants and mining operations are unnecessarily driving up the cost of Americans' electricity bills.
- Additional regulations will make it exceptionally difficult to build new coal plants. The administration's assault on coal provides little environmental benefit, has a weak scientific foundation, and removes authority from the states.
- Congress should intervene to prevent the regulatory avalanche that threatens to needlessly shrink the percentage of coal in America's energy portfolio. This includes repealing, preventing, or freezing unnecessary regulations and empowering the states to appropriately balance economic growth and environmental protection.

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further. A host of Environmental Protection Agency (EPA) permit requirements have delayed construction of new coal plants, led to fuel switching, or resulted in withdrawn permit applications. Further, despite remarkable improvements in coal mining operations and mining safety, the permitting process for mining and regulations for worker safety have been costly and failed to produce the desired effects. Congress should overhaul the regulatory approach to coal to create a framework that restricts overregulation, empowers the states, balances economic growth and environmental well-being, and creates a timely permitting process for all aspects of coal production. Congress should also eliminate all subsidies for coal technologies.

Driving Out Coal Hurts Consumers and the Economy

During his first presidential campaign, Barack Obama warned Americans that electricity prices would “necessarily skyrocket” under his proposal to reduce carbon dioxide emissions with a cap-and-trade system. Specifically, legislative attempts to cap carbon with stringent cap-and-trade provisions would force power companies to take coal power plants offline or make costly upgrades, and both choices would increase the cost of generating electricity. Although cap-and-trade

never became law, unelected bureaucrats are implementing regulations that have the same effect. The Environmental Protection Agency, the Office of Surface Mining Reclamation and Enforcement (OSMRE) in the Department of the Interior, and the Mine Safety and Health Administration (MSHA) in the Department of Labor have promulgated a host of new rules that will increase the costs of mining coal, building new plants, and operating existing plants. These regulations include:

- Cross-State Air Pollution Rule,
- Mercury and Air Toxics Standards (Utility MACT),
- Coal Combustion Residues (coal ash),
- Ozone National Ambient Air Quality Standards,
- Cooling Water Intake Structures,
- Greenhouse Gas New Source Performance Standard,
- New Source Review,
- Section 404 Clean Water Permits,
- Stream Buffer Zone Rule,
- Proximity Detection Systems,

- Examinations of Work Areas in Underground Coal Mines for Violations of Mandatory Health or Safety Standards,
- Lowering Miners’ Exposure to Respirable Coal Mine Dust, and
- Patterns of Violations.

The consulting group ICF International estimates that 20 percent of America’s coal power plants could be retired as soon as 2020 because of the EPA’s air, waste, and water regulations.² The Institute for Energy Research projects that the Cross State Air Pollution “transport rule” and the Utility MACT “toxics rule” will remove more than 33 gigawatts (GW) of electricity generation—almost 10 percent of the electricity generated by coal plants—from production.³ Several other economic analyses project that EPA regulations could take an additional 75 GWs of coal generation offline, which would significantly raise electricity bills for American consumers and threaten reliability of the electricity grid.⁴

These higher energy prices will also have rippling effects throughout the economy. As energy prices increase, the cost of making products rises. Higher operating costs for businesses will be reflected in higher prices for consumers. Because everything Americans use and produce

1. Institute for Energy Research, “North American Energy Inventory,” December 2011, <http://www.energyforamerica.org/wp-content/uploads/2012/06/Energy-InventoryFINAL.pdf> (accessed June 19, 2012).

2. “Nearly One Fifth of U.S. Coal Fleet to Retire by 2020,” *Electric Light & Power*, January 7, 2011, http://www.elp.com/index/display/article-display/2640216462/articles/electric-light-power/generation/coal/2011/01/Nearly_one_fifth_of_U_S_coal_fleet_to_retire_by_2020.html (accessed April 6, 2012).

3. Institute for Energy Research, “EPA’s Latest Assault on Coal: New Regulations to Take Over 28 GW of Electricity Generating Capacity Offline,” October 4, 2011, <http://www.instituteforenergyresearch.org/wp-content/uploads/2011/10/EPAs-28-GW-Assault-on-Coal.pdf> (accessed April 6, 2012).

4. Benjamin Salisbury, Marc de Croisset, David M. Khani, et al., “Coal Retirements in Perspective—Quantifying the Upcoming EPA Rules,” *FBR Capital Markets*, December 13, 2010, <http://jlcny.org/site/attachments/article/388/coal1.pdf> (accessed June 19, 2012), and Metin Celebi, Frank Graves, Gunjan Bathla, and Lucas Bressan, “Potential Coal Plant Retirements Under Emerging Environmental Regulations,” *The Brattle Group*, December 8, 2010, http://www.brattle.com/_documents/uploadlibrary/upload898.pdf (accessed June 19, 2012).

requires energy, consumers will take hit after hit. As prices rise, consumer demand falls, and companies will shed employees, close entirely, or move to other countries where the cost of doing business is lower. This results in fewer opportunities for American workers, lower incomes, less economic growth, and higher unemployment.

This process is already in motion. Energy companies are announcing premature closures of coal plants and are retracting permit applications because of regulations. For instance, Ohio's FirstEnergy Corporation announced that it will close six coal facilities because of the new environmental regulations.⁵ A Georgia utility recently retracted funding for a permit application, citing the EPA's air quality rules.⁶

The EPA's Regulatory Train Wreck

The Environmental Protection Agency's plethora of new regulations has been appropriately called a "regulatory train wreck." They will adversely affect existing coal plants by requiring costly retrofits, in many cases causing shutdowns because installing scrubbers and other

emission-reduction controls would be too costly. Although these regulations affect all large power plants and electric utilities, they hit coal plants the hardest. As a result, a considerable amount of electricity generation will be taken offline, significantly increasing electricity prices for American ratepayers and risking potential blackouts. Furthermore, some of the EPA's newly proposed rules will make it prohibitively expensive to build new coal plants. Many of the new rules carry exorbitant costs, provide little to no benefit, or are based on weak scientific and empirical evidence.

Cross-State Air Pollution Rule (CSAPR). The Cross-State Air Pollution Rule targets pollution that crosses state boundaries, and it aims to reduce sulfur dioxide 73 percent below 2005 levels and nitrogen oxides 54 percent below 2005 levels by 2014.⁷ CSAPR has separate compliance deadlines for 2012 and 2014 and has much more stringent reduction targets and a tighter time frame than the Clean Air Interstate Rule (CAIR), its predecessor rule. The CSAPR rule was finalized in July 2011 and was scheduled to go into effect in the beginning of 2012.

However, the U.S. Court of Appeals in Washington stayed the rule, and CAIR remains in effect. If CSPAR takes effect, the rule would negatively impact 28 states, and the EPA is moving forward with the rule despite warnings from the utility industry that the deadlines to design, permit, and install emission-reduction controls are unreasonable.⁸ The North American Electric Reliability Corporation estimates this rule alone will compel companies to retire 3 GW to 7 GW of electricity generation and retrofit 28 to 576 plants.⁹ Texas has been the most vocal in opposing CSPAR. The state's lignite coal industry, which directly supports 10,000–14,000 jobs and provides 11 percent of the state's electricity, would vanish.¹⁰ Power companies have filed dozens of lawsuits challenging the rule and are warning that the rule, if implemented, will cause dramatic increases in electric costs and possibly lead to rolling blackouts.¹¹ Even the Federal Energy Regulatory Commission (FERC) has warned that the CSAPR rule threatens grid reliability.¹²

These costs come with little added environmental benefit. The EPA is ignoring the remarkable

5. Manuel Quinones, "Ohio Power Company to Shutter 6 Coal Plants, Blames EPA Rules," *E&E Publishing*, January 27, 2012, <http://www.eenews.net/Greenwire/2012/01/27/archive/3?terms=coal> (accessed April 6, 2012; subscription required).

6. Ibid.

7. U.S. Environmental Protection Agency, "The Cross-State Air Pollution Rule: Reducing the Interstate Transport of Fine Particulate Matter and Ozone," <http://www.epa.gov/airtransport/pdfs/CSAPRFactsheet.pdf> (accessed April 6, 2012).

8. American Electric Power Company, "Clean Air Transport Rule," <http://aepsustainability.com/ourissues/envperformance/CleanAirTransportRule.aspx> (accessed April 6, 2012).

9. North American Electric Reliability Corporation, "2010 Special Reliability Scenario Assessment: Resource Adequacy Impact of Potential U.S. Environmental Regulations," October 2010, http://www.nerc.com/files/EPA_Scenario_Final_v2.pdf (accessed June 19, 2012).

10. Nicolas D. Loris, "EPA Regulations Will Kill Coal, Jobs in Texas," The Heritage Foundation, The Foundry, June 12, 2011, <http://blog.heritage.org/2011/07/12/epa-regulations-will-kill-coal-jobs-in-texas/> (accessed June 22, 2012).

11. Tom Schoenberg, "EPA Defends Cross-State Air Pollution Rule to U.S. Court," Bloomberg, March 1, 2012, <http://www.bloomberg.com/news/2012-03-01/epa-defends-cross-state-air-pollution-rule-to-u-s-court-1-.html> (accessed April 6, 2012).

12. Jon Wellinghoff, chairman, Federal Energy Regulatory Commission, letter to Senator Lisa Murkowski, August 1, 2011, quoted in Kathleen Hartnett White, "EPA's Approaching Regulatory Avalanche: A Regulatory Spree Unprecedented in U.S. History," *Texas Public Policy*, February 2012, p. 8, <http://www.texaspolicy.com/pdf/2012-02-RR01-EPAApproachingRegulatoryAvalanche-ACEE-KathleenHartnettWhite.pdf> (accessed April 6, 2012).

achievements in reducing nitrogen oxides and sulfur dioxide 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 sulfur dioxide, nitrogen oxides, and particulate matter (PM) emissions by 84 percent per kilowatt hour.¹³ However, the industry has reached a threshold where the additional emissions reductions are marginal and do 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 CSPAR will be \$7 billion annually and monetized health benefits will be from \$111 billion to \$294 billion annually.

Yet the benefits are not empirically substantiated. The EPA uses outrageous worst-case scenarios, ignores state and local emissions controls, uses outdated data, and models air quality problems using emissions data that contradict actual monitored readings. Kathleen Hartnett-White, senior fellow of the Texas Public Policy Foundation, writes that the downwind states the EPA is attempting to protect from particulate matter already meet the standard:

EPA stresses the environmental urgency of this rule intended to help the downwind states attain the federal standards for PM and ozone. Oddly, however, the downwind states targeted in the rule violated the 24-hour fine PM standard less than one-half percent of the time from 2007-2009. In fact, more than 80 percent of the downwind areas CSAPR targets as either currently or at risk of violating the federal standards for ozone or PM already attain the air quality standards in question. EPA, however, still finds risks and calculates the monetized health benefits at emission levels below the federal standards set to protect public health.¹⁴

In other words, additional regulation is unnecessary because emissions are already at acceptable levels.

To make matters worse, the EPA will implement the rule through Federal Implementation Plans (FIPs) rather than the long-standing method of setting emission reduction standards and allowing states to effectively enforce the standards with State Implementation Plans (SIPs).¹⁵ If a state's emissions causes another state to reach nonattainment, state regulators have the knowledge and flexibility to reduce

emissions, but this change would usurp the state's authority. The EPA's new targets are unjustifiably onerous and unachievable to the point that many coal-fired plants have already announced layoffs, reduced operations, and permanent closures.¹⁶

Mercury and Air Toxics Standards. In February 2012, the EPA finalized new mercury and air toxics standards that would force utilities to use maximum achievable control technology (MACT) standards to reduce mercury emissions and other hazardous air pollutants (HAPs). More commonly known as the Utility MACT regulation, the EPA began the process to regulate mercury emissions in 1998, but during its evaluation, it did not find demonstrable direct health benefits from regulating other HAPs. Nevertheless, the new EPA rule targets not only mercury but also arsenic, chromium, nickel, and acid gases. The EPA estimates this rule could cost more than \$10 billion per year by 2015, but the Electric Reliability Coordinating Council estimates it could cost as much as \$100 billion per year.¹⁷

Utility MACT is another instance in which the environmental and health benefits do not justify the costs. The EPA claims this rule would produce \$53 billion to \$140 billion in annual benefits, but the

13. Hartnett White, "EPA's Approaching Regulatory Avalanche."

14. Ibid.

15. States can still apply for an SIP but initial enforcement will come through an FIP. The EPA will also promulgate an FIP if the agency finds the state's SIP to be insufficient or if it fails to submit one. "Federal Implementation Plans to Reduce Interstate Transport of Fine Particulate Matter and Ozone in 27 States; Correction of SIP Approvals for 22 States," 40 CFR Parts 51, 52, 72, 78, and 97 Final Rule, Environmental Protection Agency, July 6, 2011, http://www.epa.gov/airtransport/pdfs/TR_070611_WEB.pdf (accessed June 19, 2012).

16. Bryan W. Shaw, "Out of Thin Air: EPA's Cross-State Air Pollution Rule," testimony before the Committee on Science, Space, and Technology, U.S. House of Representatives, September 14, 2011, http://science.house.gov/sites/republicans.science.house.gov/files/documents/hearings/091511_Shaw.pdf (accessed April 6, 2012).

17. Scott H. Segal, "ERCC Comments on Utility MACT," Electric Reliability Coordinating Council, August 4, 2011, <http://www.electricreliability.org/news/ercc-comments-utility-mact> (accessed April 6, 2012).

mercury reductions would produce at most \$6 million in benefits.¹⁸ The EPA exaggerates the environmental benefits by including estimated benefits from reducing particulates (co-benefits) already covered by existing regulations. Those co-benefits account for 99.996 percent of the agency's estimated benefits. Even the \$6 million benefit might be an exaggeration because the EPA ignores clinical studies that demonstrate the human body's ability to protect itself against high levels of mercury.¹⁹

Coal Combustion Residues (Coal Ash). The EPA is proposing the first-ever federal regulations on coal combustion residues that would classify the by-product as a hazardous material and impose costly and unnecessary requirements for managing and disposing of the residues. Coal combustion residues, also known as coal ash, are commonly recycled to make cement, drywall, asphalt, and bricks. They are processed to make plastics lighter and stronger and as filler in wood products. Coal ash was even used to make the concrete in the EPA's headquarters building and the concrete platforms and structures of the subway system in Washington, D.C. Businesses reuse almost half the coal ash produced annually in electricity generation. Prior to the coal ash spill from the Tennessee Valley Authority's Kingston Fossil Plant

in December 2008, the EPA repeatedly concluded that coal ash does not exhibit any characteristics of hazardous wastes and should not be regulated as a hazardous waste under the Resource Conservation and Recovery Act (RCRA). In fact, the agency chose not to pursue hazardous waste regulations because this would adversely affect the reuse market, which conserves natural resources and reduces the amount of coal ash destined for disposal. However, the Kingston spill spurred the agency to reconsider that decision and initiating a federal rulemaking to regulate the disposal of coal ash from electric utilities.

On June 21, 2010, the EPA issued a proposed rule with two options for regulating the disposal of coal ash as either a hazardous or nonhazardous waste.²⁰ While the Kingston spill demonstrated a need to better engineer and regulate the construction of impoundments, the incident does not justify regulating coal ash as a hazardous waste. In fact, despite the magnitude of the accident, the Tennessee Department of Health found no adverse health effects caused by the spill.²¹ Importantly, the National Rural Electric Cooperative Association warns that as much as 18 percent of the nation's coal generation would be at risk of closure if EPA classifies coal ash as hazardous.²² Nearly every state, the Environmental Council of the States,

the U.S. Conference of Mayors, and the Association of State and Territorial Solid Waste Management Officials oppose regulating coal ash as hazardous waste.

National Ambient Air Quality Standards (NAAQS). In June 2007, the EPA proposed a more stringent revision of NAAQS for ground-level ozone, the primary component of smog. At the time, the eight-hour ozone standard was 84 parts per billion (ppb), and the Bush-era rule lowered that to 75 ppb. The Obama Administration began to pursue a much more aggressive standard of 60 ppb, but understanding that the lower standard would destroy millions of jobs, President Obama recently asked EPA Administrator Lisa Jackson to withdraw the agency's draft for more stringent NAAQS. Attaining the 60 ppb standard would have exceeded \$1 trillion in costs between 2020 and 2030 and destroyed more than 7 million jobs by 2020.²³ Although Jackson begrudgingly complied, the EPA is still moving to enforce the misguided 75 ppb rule that was adopted in 2008.

The 84 ppb ozone standard is already more stringent than it needs to be and provides more than enough protection for citizens' health. The massive costs of tightening the standard have outweighed the negligible environmental benefits in the past, and enforcing the 75 ppb standard

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18. Anne E. Smith, "Technical Comments on the Regulatory Impact Analysis Supporting EPA's Proposed Rule for Utility MACT and Revised NSPS (76 FR 24976)," NERA Economic Consulting, August 3, 2011, http://www.nera.com/nera-files/PUB_Smith_EPA_report_0811.pdf (accessed June 19, 2012).
 19. Willie Soon and Paul Driessen, "The Myth of Killer Mercury," *The Wall Street Journal*, May 25, 2011, <http://online.wsj.com/article/SB10001424052748703421204576329420414284558.html> (accessed June 19, 2012).
 20. 75 Code of Federal Regulations §§ 35 and 127 (June 21, 2010).
 21. Tennessee Valley Authority, "Kingston Ash Recovery Project," June 6, 2011, <http://www.tva.gov/kingston/pdf/Kingston%20Ash%20Recovery%20Project%20Fact%20Sheet%20Final%2006-06-2011.pdf> (accessed June 19, 2012).
 22. National Rural Electric Cooperative, "Benefits of Coal Combustion Residual Materials," <http://www.nreca.coop/press/NewsReleases/Pages/BenefitsofCoalCombustionResidualMaterials.aspx> (accessed July 5, 2012).
 23. Donald A. Norman, "Economic Implications of EPA's Proposed Ozone Standard," Manufacturers Alliance MAPI, September 2010, <http://www.mapi.net/Filepost/ER-707.pdf> (accessed June 22, 2012).

will yield diminishing marginal returns—possibly to the vanishing point. Even the EPA acknowledged that lowering the ozone standard to 70 ppb would lower asthma and respiratory diseases by only a few tenths of a percent.²⁴ Enforcing a 75 ppb standard would have similar marginal benefits. Furthermore, the causality between more stringent ozone standards and better health effects is unclear. Laboratory studies on both humans and animals show that real-world ozone exposure is not deadly and that “college student volunteers who breathed controlled concentrations of ozone 50 percent greater than the current standard while vigorously exercising for six hours registered only small, short-term changes in lung function.”²⁵ However, it is clear and well established that improved economic well-being means that people are healthier and live longer. A tighter ozone rule will slow economic growth and reduce economic well-being.

Cooling Water Intake Structures (CWIS). Many power plants, including coal plants, have cooling systems that use large volumes of water from streams, lakes, rivers, and oceans to condense the steam used to generate electricity. The water is ultimately returned to its original source. In April 2011, the EPA proposed a rule under Section 316(b) of the Clean Water Act that would require changes to cooling

water intake structures to implement “best technology available” in order to minimize aquatic mortality, mostly of small fish, eggs, larvae, and plankton. Although it is encouraging that the EPA chose not to require costly closed-cycle technology at all facilities, the proposed rule imposes inflexible numeric requirements for impingement (where aquatic life is trapped against the cooling intake screen) or low-water intake velocity that is not available at all facilities. The proposed rule ignores site-specific requirements, alternative methods that power plants use to protect fish populations, and states’ capability of managing 316(b) requirements. The U.S. Supreme Court even recognized the EPA’s authority to grant power to the states to manage environmental and grid reliability concerns.²⁶ Furthermore, the rule fails the cost–benefit analysis test. The EPA projects the rule will cost \$384 million per year and produce annual benefits of \$18 million.²⁷ However, the Electric Power Research Institute projects compliance costs will actually reach \$64 billion.²⁸

Greenhouse Gas Emissions. In April 2009, the EPA issued an endangerment finding that carbon dioxide and other greenhouse gases pose a serious threat to human health and public safety. Administrator Lisa Jackson recently announced that the EPA would proceed with

twice-delayed regulations targeting power plants that emit carbon dioxide and other greenhouse gases. The proposed rule will prohibit new power plants from emitting more than 1,000 pounds of carbon dioxide per megawatt of electricity generated. Since natural gas power plants already meet that requirement, the rule targets new coal-fired plants.²⁹ This is a rule with all costs and no benefits. The EPA classifies carbon dioxide (a colorless, odorless non-toxic gas) as a pollutant not because it directly affects human health, but because some believe it contributes to global warming, leading to rising sea levels, stressed water resources, increased size and quantity of wildfires, and other effects.

The EPA has long ignored the disagreement within the scientific community on classifying carbon dioxide as a pollutant and on the magnitude of anthropogenic (man-made) global warming. Yet even setting aside the scientific dissention on these two points, the EPA regulations will not reduce carbon dioxide enough to have any meaningful effect. Attempting to reduce carbon dioxide unilaterally will significantly change overall global emissions. China and India’s carbon dioxide emissions are rapidly increasing as their economies continue to expand, and they have no intention of slowing economic growth to curb emissions. Even if the EPA were to reduce U.S.

24. H. Sterling Burnett, “A Clean Air Regulation Hazardous to Health,” American Enterprise Institute, October 22, 2007, <http://www.aei.org/article/energy-and-the-environment/a-clean-air-regulation-hazardous-to-health/> (accessed June 19, 2012).

25. *Ibid.*

26. American Legislative Exchange Council, “EPA’s Regulatory Train Wreck: Strategies for State Legislators,” 2011, pp. 10–26, <http://www.alec.org/wp-content/uploads/EPA-TRAIN-WRECK-2011-Final-Ch2.pdf> (accessed June 19, 2012).

27. *Federal Register*, “Criteria and Standards for Cooling Water Intake Structures,” Unified Agenda 2040-AE95, Fall 2011, <https://www.federalregister.gov/regulations/2040-AE95/criteria-and-standards-for-cooling-water-intake-structures> (accessed June 19, 2012).

28. American Legislative Exchange Council, “EPA’s Regulatory Train Wreck,” pp. 10–26.

29. The EPA will eventually propose rules for existing plants as well.

carbon emissions 83 percent below 2005 levels by 2050, as mandated by cap-and-trade bills, the reduction would constitute a negligible portion of worldwide emissions and do nothing to impact global temperatures.³⁰

Existing Regulatory Challenges

Beyond the EPA's regulatory train wreck, a number of other problematic regulations are prematurely shuttering coal facilities and preventing the building of new plants and the expansion of existing ones. Chief among these is New Source Review (NSR), one of the 1977 Clean Air Act amendments. In areas that meet air quality standards, plants must follow Prevention of Significant Deterioration (PSD) rules to demonstrate that the construction and operation of new projects and major modifications will not increase emissions above a specified threshold. In areas that do not meet the NAAQS that NSR requires, new plants must install equipment to achieve the lowest achievable emission rate (LAER), buy emission offsets, and provide opportunity for public involvement.³¹

There are several problems with NSR and PSD. What constitutes a significant modification is subjective under the rules. The amendment excludes routine maintenance, repair, and replacement, but what falls under the definition of

significant modification remains murky, despite multiple administrative attempts to clarify the meaning.

Plant upgrades can improve efficiency and reduce operational costs, thereby lowering electricity costs, increasing reliability, and providing environmental benefits. Nevertheless, NSR requirements for upgrades discourage these activities. Increasing the efficiency of a plant will cause it to run longer and consequently cause the plant's emissions to rise. NSR does not account for the emission reduction that would occur if a less efficient plant reduced its hours of operation to compensate for increases in operation of a more efficient plant.

The lack of clarification also forces companies into years of litigation over NSR violations. For instance, in 1999, the EPA filed a complaint against Cinergy Corporation, which was later bought by Duke Energy, claiming that modifications to two of the plants at the Gallagher Generating Station in New Albany, Indiana, violated the Nonattainment New Source Review and PSD provisions of the Clean Air Act.³² Duke maintained that the upgrades were part of the routine maintenance exclusion, but after 10 years of litigation, the company entered into a consent decree to retire two of the plants or convert them to natural gas and to spend \$85 million on plant

modifications and \$6.25 million on environmental mitigation projects, and to pay a \$1.75 million civil penalty.³³ In total, power companies have entered into 17 consent decrees with the U.S. Justice Department.

NSR is a vaguely written rule that disincentivizes efficiency improvements. As Robert Peltier, editor in chief of *POWER Magazine*, writes, "A good analogy would be if you put a new carburetor on your 1957 Chevy you would then have to meet all the 2010 air quality standards. Often the cost of the upgrades cost more than the first cost of the plant."³⁴

The Assault on Mining

The attack on coal reaches well beyond power plant construction and operation. Although not a new problem, starting new coal mining operations or expanding existing operations has become increasingly difficult. Coal mining operations are subject to 10 federal environmental laws as well as state requirements and regulations. Furthermore, environmental regulations have been implemented in extreme, subjective, and contradictory ways that delay and restrict access to critical energy sources, preventing the creation of new jobs, destroying existing jobs, and providing little to no environmental benefit.

Clean Water Permits. Under Section 404 of the Clean Water

30. Chip Knappenberger, "Climate Impacts of Waxman-Markey (the IPCC-Based Arithmetic of No Gain)," Master Resource, May 6, 2009, <http://www.masterresource.org/2009/05/part-i-a-climate-analysis-of-the-waxman-markey-climate-bill%e2%80%94the-impacts-of-us-actions-alone/> (accessed April 6, 2012).

31. Environmental Protection Agency, "Nonattainment NSR Basic Information," <http://www.epa.gov/NSR/naa.html> (accessed June 19, 2012).

32. *U.S. v. Cinergy Corporation*, U.S. District Court for the Southern District of Indiana, <http://www.epa.gov/compliance/resources/decrees/civil/caa/dukeenergy-cd.pdf> (accessed April 6, 2012).

33. Environmental Protection Agency, "Duke Energy Gallagher Plant Settlement Information Sheet," December 22, 2009, <http://www.epa.gov/compliance/resources/cases/civil/caa/dukeenergy-infosht.html> (accessed March 29, 2012).

34. Robert Peltier, "Time to Repeal New Source Review? (Up to 30 GW of Coal-Plant Upgrades Hangs in the Balance)," Master Resource, February 4, 2010, <http://www.masterresource.org/2010/02/time-to-repeal-new-source-review/> (accessed April 6, 2012).

Act, the Army Corps of Engineers administers permits for activities, including coal mining, that discharge dredge or fill material³⁵ into U.S. waters and wetlands. The EPA also reviews, comments, and can veto the permit application. However, the EPA is abusing its ability to place holds on permit applications. The EPA held nearly 200 permit applications—many in the final stages of processing by the Army Corps—in a state of limbo and altered the permit requirements in violation of its authority under the Clean Water Act as determined by the courts.³⁶ In an unprecedented move, in January 2011, the EPA revoked a water permit issued by the Army Corps of Engineers in 2007 for a West Virginia mine.³⁷

On October 6, 2011, the U.S. District Court for the District of Columbia struck down those EPA procedures stating that the “EPA has expanded its role in the issuance of Section 404 permits and has thus exceeded the statutory authority afforded to it by the Clean Water Act.”³⁸ On March 23, 2012, the U.S. District Court for the District of Columbia rejected the EPA’s attempt to retroactively veto the

dredge-and-fill permit, allowing the people of Mingo Logan Coal to go back to work: “This attempt to withdraw the specification of discharge sites after a permit has been issued is unprecedented in the history of the Clean Water Act.” The court went on to find that the EPA interpretation of the rule was “unreasonable.”³⁹

These were important victories in reining in the EPA. Regrettably, environmental groups are urging the EPA to appeal and are urging the EPA to continue to usurp the authority of the Army Corps of Engineers and states in issuing water quality permits, which creates uncertainty in the mining industry.

Stream Protection. The Surface Mining Control and Reclamation Act (SMCRA) of 1977 plays an important role in protecting the environment from coal mining and reclaiming abandoned mined lands. It creates regulatory certainty and for the most part allows states to tailor regulatory requirements to their regional and local needs. However, proposed federal rules would fundamentally change the federal–state relationship. This is exactly what is occurring with the revised Stream Buffer Zone Rule. For example, from 2003 to 2008,

the Office of Surface Mining (OSM) worked with the EPA, the Army Corps of Engineers, and the Fish and Wildlife Service to develop a stream buffer rule to avoid mining activities near streams when possible and to use the best technology available to minimize sediments entering streams to protect fish, wildlife, and water quality. After two environmental impact statements and consideration of 43,000 public comments, the OSM published a final rule, which the Obama Administration attempted to summarily set aside without the required rulemaking procedure. The court ruled that the Administration’s action violated the Administrative Procedure Act and that the OSM must either implement the rule as written or begin a new rulemaking process. The OSM chose to begin writing a new rule, which could significantly reduce coal mining in Appalachia, the Illinois Basin, the Gulf Region, and Alaska.⁴⁰ According to the OSM’s own projections, the proposed rule could eliminate 10,749 jobs in Appalachia.⁴¹

The new rule would impose additional permitting and reporting requirements and restrict various mining activities. The rewritten rule

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35. Dredge is material excavated from U.S. waters. Fill material is any material used when replacing water or a wetland with dry land.
36. U.S. Senate, Committee on Environment and Public Works Minority Staff, “The Obama Administration’s Obstruction of Coal Mining Permits in Appalachia,” May 21, 2010, http://epw.senate.gov/public/index.cfm?FuseAction=Files.View&FileStore_id=ba11c7e3-2078-4e37-817c-04c72190be70 (accessed June 19, 2012).
37. Stephen Power and Kris Maher, “EPA Blasted as It Revokes Mine’s Permit,” *The Wall Street Journal*, January 14, 2011, <http://online.wsj.com/article/SB10001424052748703583404576079792048919286.html> (accessed April 6, 2012). In testimony, Hal Quinn, CEO of the National Mining Association, explained the flaws in the EPA’s justification for revoking the permit. Hal Quinn, “EPA Mining Policies: Assault on Appalachian Jobs—Part I,” testimony before the Subcommittee on Water Resources and Environment, Committee on Transportation and Infrastructure, U.S. House of Representatives, May 5, 2011, http://www.nma.org/pdf/cong_test/050511_quinn.pdf (accessed June 19, 2012).
38. *National Mining Association v. Jackson*, United States District Court for the District of Columbia, November 6, 2011, http://www.nma.org/pdf/tmp/100611_404_opinion.pdf (accessed April 6, 2012).
39. *Mingo Logan Coal Company v. U.S. Environmental Protection Agency*, United States District Court for the District of Columbia, https://ecf.dcd.uscourts.gov/cgi-bin/show_public_doc?2010cv0541-87 (accessed April 6, 2012).
40. Eugene Kitts, testimony before the Subcommittee on Energy and Mineral Resources, Committee on Natural Resources, U.S. House of Representatives, April 7, 2011, http://www.nma.org/pdf/cong_test/040711_kitts.pdf (accessed April 6, 2012).
41. Thomas A. Clarke, testimony before the Subcommittee on Energy and Mineral Resources, Committee on Natural Resources, U.S. House of Representatives, September 26, 2011, <http://naturalresources.house.gov/UploadedFiles/ClarkeTestimony09.26.11.pdf> (accessed April 6, 2012).

also has several serious problems. It only vaguely defines permit requirements, monitoring, and stream classifications, which it applies to both surface and underground mining.⁴² It removes flexibility in how companies reclaim mine sites, for instance by requiring reforestation even though wildlife organizations are working with the coal industry to provide grassland habitats for a wide range of species.⁴³ Furthermore, it ignores regional differences and the efficient state regulatory work that manages those differences.⁴⁴ State and local agencies' specific knowledge often enables them to tailor regulations to promote economic activity while protecting the habitat and environment. In September 2011, John Corra, director of the Wyoming Department of Environmental Quality, testified before the House Energy and Mineral Resources Subcommittee that his state has the necessary regulations in place for stream protection and reclamation.⁴⁵ Thomas Clarke, director of the West Virginia Division of Mining and Reclamation in the West Virginia Department of Environmental Protection, echoed this sentiment:

The current OSM rulemaking will diminish the regulatory flexibility that states have in favor of national solutions dictated from Washington. West Virginia has been successful in addressing new issues as they arise, within SMCRA's regulatory framework.⁴⁶

Worker Health and Safety.

Mine worker safety is critically important. U.S. mining is constantly improving mining safety and has implemented CORESafety, a new safety and health management system that commits the industry to eliminating fatalities and reducing the mining injury rate by 50 percent within five years. However, the Mine Safety and Health Administration is imposing unneeded rules that are being implemented in unworkable time frames or removing responsibility from the miner.

Proximity Detection Systems. In 2011, the MSHA proposed a new rule for proximity detection systems for continuous miners (a large electric-powered machine that cuts the coal from a seam) to prevent miners from being run over, pinned, or crushed by the machinery. While the industry

broadly supports the use of proximity detection technology, they warned the MSHA that the proposed implementation time line could jeopardize the device's efficacy. Implementation must be carried out within 18 months of the rule's publication, but Ernal Shaw, Safety Manager at Bowie Resources LLC, said that the time frame is literally impossible and that implementing the rule would take at least 24 months.⁴⁷ In comments submitted to MSHA, Alpha Natural Resources Vice President of Safety John Gallick emphasized the importance of red zone⁴⁸ training and deeper and longer cuts to the mine to minimize injuries and fatalities.⁴⁹

Examinations of Work Areas in Underground Coal Mines. This rule would change the duties of the mine examiner, a person hired by the mining company to identify hazardous conditions, by requiring examiners to identify health or safety standards violations. On the surface, this sounds beneficial, but examiners do not receive the same training as inspectors, and the standard violations inspectors cite are much more particular than what an examiner should check. Changing the role of the mine examiner has the

42. National Mining Association, "Stream Buffer Zone (SBZ)," http://www.nma.org/pdf/tmp/011712_sbz.pdf (accessed June 19, 2012).

43. David Ledford, "Comments to Office of Surface Mining Reclamation and Enforcement Regarding the Stream Protection Rule, and the Intent to Prepare an Environmental Impact Statement," Appalachian Wildlife Foundation, June 30, 2010, http://www.nma.org/pdf/legal/stream/080410_appalachia.pdf (accessed June 19, 2012).

44. Bradley C. (Butch) Lambert, written testimony before the Subcommittee on Energy and Mineral Resources, Committee on Natural Resources, U.S. House of Representatives, September 26, 2011, <http://naturalresources.house.gov/UploadedFiles/LambertTestimony09.26.11.pdf> (accessed June 19, 2012).

45. John Corra, written testimony before the Subcommittee on Energy and Mineral Resources, Committee on Natural Resources, U.S. House of Representatives, September 26, 2011, <http://naturalresources.house.gov/UploadedFiles/CorraTestimony09.26.11.pdf> (accessed June 19, 2012).

46. Clarke, testimony.

47. Ernal Shaw, "Comments on the Proposed Rule Proximity Detection Systems for Continuous Mining Machines in Underground Coal Mines," memorandum to Mine Safety and Health Administration, U.S. Department of Labor, November 23, 2011, <http://www.msha.gov/REGS/Comments/2011-22125/AB65-2COMM-20.pdf> (accessed June 19, 2012).

48. The unsafe proximity of people to the machinery.

49. John Gallick, "RIN 1219-AB65 Comments on the Proposed Rule Proximity Detection Systems for Continuous Mining Machines in Underground Coal Mines," letter to Roslyn Fontaine, acting director, Office of Standards, Regulations, and Variances Mine Safety and Health Administration, U.S. Department of Labor, November 28, 2011, <http://www.msha.gov/REGS/Comments/2011-22125/AB65-2COMM-28.pdf> (accessed June 19, 2012).

unintended consequence of detracting from the examiner's core function of recognizing and preventing hazardous conditions. The MSHA recognized this in 1996 when it proposed a similar rule, noting, "Most hazards are violations of mandatory standards. Requiring the examiner to look for all violations regardless of whether they involve a distinct hazard could distract the examiner from the more important aspects of the examination."⁵⁰ The MSHA recently released the rule, but the agency should reconsider it and once again recognize that states have taken the lead on this issue and have different certification programs for examiners.

Lowering Miners' Exposure to Respirable Coal Mine Dust. Another MSHA overreach is the proposed rule to reduce exposure to coal mine dust. Implementation of coal mine dust regulations to prevent pneumoconiosis (black lung) began in 1970 by setting a standard of 3.0 milligrams per cubic meter. The MSHA lowered the standard to 2.0 milligrams per cubic meter in 1973 and is now proposing to lower the standard to 1.0, claiming that cases of black lung are on the rise. The proposed rule also requires the use of the continuous personal dust monitor and relies on those devices to send data

on dust exposure to MSHA.⁵¹ Yet contrary to the statutory requirement, MSHA does not use the best available science to justify the lower coal dust standard.⁵² A May 2011 study in *Occupational and Environmental Medicine* studied regional differences in increases in coal worker pneumoconiosis, the relationship to coal dust, and federal regulations implemented by MSHA. The study concluded that increases in pneumoconiosis were not explained by dust exposure, but likely by mine size and low-seam mining (coal mines with a seam of 1.2 meters or less). It emphasized the need for more study to identify the contributing factors to pneumoconiosis.⁵³ Furthermore, continuous personal dust monitors can reliably measure relative differences in dust exposure, but should not be used to determine numeric compliance with any federal regulation.⁵⁴

Patterns of Violations. The MSHA issues patterns of violation (POV) for mines that have persistent health and safety violations, and such an issuance shuts down the entire mine or part of the mine. MSHA's proposed rule for POV takes a guilty-until-proven-innocent approach by basing the decision on violations issued. The proposed rule also removes the provision in which

MSHA warns a mining operation before issuing a POV and does not provide a way for operators to avoid a POV issuance. The MSHA's main reason for the rule is to remove the backlog of contested violations before the Federal Mine Safety and Health Review Commission. Much of the backlog is the result of MSHA issuing more violations. MSHA reduced 20 percent of the significant and substantial violations issued in 2009 and 2010 to nonsignificant and substantial as a result of the litigation process.⁵⁵ MSHA has also had difficulty in accurately evaluating a mine's inspection theory. Given that the MSHA has not outlined how many violations it will take to issue a POV, these margins of error would prove to be unnecessarily costly. Because of the ambiguity and lack of due process, the MSHA should rescind this rule.

What Congress Should Do

Congress should change the regulatory landscape for coal mining with several principles in mind. Some regulations are simply unneeded, and Congress should prohibit the EPA from implementing such regulations. Other regulations have reached a point of diminishing returns at which further tightening will impose

50. John Gallick, "Comments on Proposed Rule on Workplace Examinations," testimony, <http://www.msha.gov/REGS/Comments/2010-32410/Transcripts/AB75%20John%20Gallick%20Hearing%20Submission.PDF> (accessed April 5, 2012).

51. U.S. Department of Labor, Mine Safety and Health Administration, "MSHA's Proposed Rule on Lowering Miners' Exposure to Respirable Coal Mine Dust, Including Continuous Personal Dust Monitors," October 14, 2010, <http://www.msha.gov/S&HINFO/BlackLung/FactSheetCoalMineDust2010.pdf> (accessed June 19, 2012).

52. Federal Mine Safety and Health Act of 1977, Public Law 91-173, § 101(a)(6)(A).

53. Eva Suarathana et al., "Coal Workers' Pneumoconiosis in the United States: Regional Differences 40 Years After Implementation of the 1969 Federal Coal Mine Health and Safety Act," *Occupational Environmental Medicine*, Vol. 68, No. 12 (May 19, 2011), pp. 908-913.

54. Edward M. Green, "Comments on Lowering Miners' Exposure to Respirable Coal Mine Dust, Including Continuous Personal Dust Monitors, Proposed Rule," e-mail to Roslyn B. Fontaine, Office of Standards, Regulations, and Variances, Mine Safety and Health Administration, U.S. Department of Labor, June 20, 2011, <http://www.msha.gov/REGS/Comments/2010-25249/AB64-COMM-73.pdf> (accessed June 19, 2012).

55. David A. Gooch, "RIN 1219-AB73: Comments on MSHA's Proposed Rule for Pattern of Violations," letter to April E. Nelson, acting director, Office of Standards, Regulations, and Variances, Mine Safety and Health Administration, U.S. Department of Labor, April 4, 2011, <http://www.msha.gov/REGS/Comments/2011-2255/AB73-COMM-30.PDF> (accessed June 19, 2012).

exceedingly high costs on American energy consumers for unnoticeable environmental benefits that are often estimated based on unsound science. State regulators have the incentive to balance economic and environmental well-being and can use local knowledge to manage the interests of all affected parties. Congress and the Administration should:

- **Repeal New Source Review.** The NSR is a bureaucratic mess that prevents plants from operating at optimal efficiency. Repealing it would not only improve plant efficiency and reduce emissions, but also increase power generation to meet U.S. energy needs. Repeal would create incentives for utilities to install technology upgrades to improve plants environmentally and to increase electricity supply with new coal, natural gas, or nuclear power plants.
- **Prohibit the EPA from regulating greenhouse gas emissions.** Realizing the costs and folly of instituting a massive greenhouse gas regulatory regime, Members of the previous Congress refused to pass cap-and-trade legislation designed to cut greenhouse gas emissions, but unelected EPA bureaucrats bypassed the legislative process by using regulations under the Clean Air Act to regulate carbon dioxide. The most effective and comprehensive approach would be to prohibit all federal regulators from

using greenhouse gas emissions as a reason to slow or prevent economic activity. For example, Senator John Barrasso (R-WY) has introduced legislation that would prohibit the EPA and other federal regulators from using any environmental act to impose regulations based on climate findings, including the Clean Air Act, the Endangered Species Act, the Clean Water Act, and the National Environmental Policy Act. This would “preempt regulation of, action relating to, or consideration of greenhouse gases under Federal and common law on enactment of a Federal policy to mitigate climate change.”⁵⁶

- **Freeze new federal environmental regulations.**⁵⁷ Controlling the EPA’s six criteria pollutants is important, and a combination of technological upgrades and federal and state regulations have achieved extraordinary success in reducing those pollutants. For instance, sulfur dioxide and nitrogen oxides emissions have steadily declined as coal-powered plants implemented pollution-control technology and as more modern plants were built. From 1970 to 2006, total sulfur dioxide emissions per megawatt hour declined 80 percent. From 1980 to 2006, nitrogen oxides emissions per megawatt hour fell 70 percent.⁵⁸ However, the U.S. has reached a point of diminishing returns at which new, more stringent federal regulations

for criterion pollutants flunk the cost-benefit test. Congress should therefore freeze new environmental regulations and allow technological innovation to lead emissions reductions.

- **Require congressional approval of major new regulations promulgated by agencies.** Under the 1996 Congressional Review Act, Congress can veto new regulations. To date, Congress has successfully used this authority only once: on a Department of Labor rule imposing ergonomics standards in 1993. Requiring congressional approval before any major regulation takes effect would strengthen the review process. The REINS Act (H.R. 10), which the House approved in December 2011, and the companion Senate bill (S. 299), which is pending in committee, would take this approach. Such a system would ensure a congressional check on regulators and require Congress to hold itself accountable.
- **Return power to the states.** Federal agencies are seizing the states’ authority and reducing the states’ effectiveness in managing environmental protection. Congress should ensure that coal ash is not classified as a hazardous waste and create a system that would allow states to create their own regulatory permit program for coal ash disposal and management. The Coal Residuals Reuse and Management Act

56. Defending America’s Affordable Energy and Jobs Act, S. 228 and H.R. 750, 112th Cong., 1st Sess.

57. James L. Gattuso and Diane Katz, “Red Tape Rising: Obama-Era Regulation at the Three-Year Mark,” Heritage Foundation *Backgrounder* No. 2663, March 13, 2012, <http://www.heritage.org/research/reports/2012/03/red-tape-rising-obama-era-regulation-at-the-three-year-mark>.

58. Institute for Energy Research, “The Facts About Air Quality and Coal-Fired Power Plants,” June 1, 2009, <http://www.instituteforenergyresearch.org/2009/06/01/the-facts-about-air-quality-and-coal-fired-power-plants/> (accessed June 19, 2012).

(H.R. 2273) would do just that.⁵⁹ Congress should also prevent federal regulators from implementing new stream protection buffer zone rules, cross-state air pollution rules, and cooling water intake structure rules and recognize the states' abilities to effectively balance environmental protection and economic well-being. Congress should also prevent the EPA from usurping authority from the Army Corps of Engineers and the states in administering Section 404 of the Clean Water Act permits for dredge or fill materials.

- **Restructure and withdraw proposed worker safety rules.** The Mine Safety and Health Administration should restructure its proximity detection systems rule to allow more time for installation, correction of malfunctioning devices, and miners to learn the system. The MSHA should also reconsider and ultimately withdraw the proposed rules on the Examinations of Work Areas in Underground Coal Mines and Lowering Miners' Exposure to Respirable Coal Mine Dust because they are vague, ignore local and regional

differences, and take decision making away from the miner. Further, more studies need to be done to understand the contributing factors to pneumoconiosis. The MSHA should also consider reinstating the conference process for citations to remove the backlog of formal hearings and use only citations that have been considered final to identify potential POV mines.

- **Eliminate subsidies for clean coal technologies.** Today's political classification of clean coal technology is misguided. Politicians describe clean coal as coal with technology to significantly reduce carbon dioxide emissions, most notably carbon capture and sequestration (CCS). Yet carbon dioxide is not a pollutant, but a clear, natural component of the air. It is the ubiquitous and unavoidable by-product of fossil fuel use and naturally occurring events such as volcano eruptions, earthquakes, and breathing. Instead of allowing newer, cleaner coal projects to come online, the federal government has wasted taxpayer dollars trying to commercialize CCS. Rather than trying to subsidize

a handful of CCS-equipped coal plants, Congress should eliminate all subsidies for "clean" and advanced coal plants and create a regulatory environment that allows newer plants to come online efficiently.

Allow Coal to Rock On

The U.S. should not mine coal or build coal power plants just for the sake of using coal. If other sources of energy are more affordable and more efficient, the market will move to different power sources. For decades, coal has literally been the rock that has powered America with cheap, reliable energy. Yet the federal government is using every possible avenue to reduce coal's role in American energy production by creating an environment in which coal production's decline is inevitable. Congress should reform federal policies and regulations to enable the market—not federal politicians and bureaucrats—to determine the role of coal in U.S. electricity generation.

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59. Coal Residuals Reuse and Management Act, H.R. 2273, 112th Cong., 1st Sess.