Adirondack ADK Mountain Club

Working for Wilderness

October 30 2018

Attention Docket ID No. **EPA-HQ-OAR-2017-0355**
U.S. Environmental Protection Agency
EPA Docket Center (EPA/DC)
1200 Pennsylvania Avenue, NW
Mail Code 28221T
Washington DC, 20460

RE: Docket ID No.: EPA-HQ-OAR-2017-0355

To Whom It May Concern:

On behalf of the Adirondack Mountain Club (ADK), thank you for the opportunity to comment on the Environmental Protection Agency's (EPA) Affordable Clean Energy (ACE) rule. Please note that our comments from July 9, 2007 regarding the proposal to change the emissions increase test used to determine if the New Source Review (NSR) permitting program would apply when an existing power plant makes a physical or operational change, Docket ID No.: EPA-HQ-OAR-2005-0163, are hereby incorporated herein by reference and attached at the end of this document. The comments below are in response to the proposed ACE rule and to the specific EPA comment solicitations including C-1 through C-75.

ADK is extremely concerned that the Affordable Clean Energy (ACE) rule will cause direct harm to human communities, aquatic life, and forest ecosystems in the Adirondacks and Catskills and other wild lands and waters throughout the Northeast. The ACE rule will have a direct impact on the quality of life of our 30,000 members and the wildlands that we work to protect. The ACE rule is likely to substantially increase the use of aging, coal-fired power plants without any requirement to reduce emissions that cause acid deposition in the environment, the buildup of the neurotoxin methylmercury in the food chain, dangerous concentrations of CO2 in the atmosphere, particulate matter, smog, and ground-level ozone.

<u>Adirondack Mountain Club</u>

ADK is the only nonprofit organization dedicated to protecting and advocating for New York State's wild lands and waters while also teaching people how to enjoy natural places responsibly. Since 1922, the organization has offered people opportunities to stay and play in as well as protect, discover, and explore the outdoors. Today, ADK has 30,000 members in 27 chapters statewide and is served by a professional, year-round staff. The organization is recognized as a vital voice in the commitment to environmental stewardship and ethical outdoor recreation in New York State. ADK members hike, camp, snowshoe, cross-country ski, paddle, and cycle the lands and waters of the Adirondack Park and other state lands. Our members are also monitors and maintainers of trails and recreation infrastructure as well as watchdogs of public lands and watersheds to monitor for invasive species or irresponsible and destructive motorized trespass.

We respectfully request that you consider the following concerns and comments outlined below.

Approximately 40 percent of the CO2 emissions in the United States are produced by coal- and gas-fired power plants. Before the CPP was finalized in 2015, there were no uniform guidelines in the United States for regulating carbon emissions from the power sector. The CPP was developed to institute a framework for states and utilities to achieve short- and long-term emission reduction targets through the use of alternative and renewable energy sources and upgrades in technology.[1]

The CPP called for a reduction of greenhouse gas emissions from the electricity sector of 32 percent of 2005 levels by 2030.[2] The CPP was the primary tool for the U.S. to meet the emissions reduction target pledged at the U.N. climate talks in Paris in 2015.[3]

The CPP was an important part of fulfilling EPA's legal obligation, repeatedly upheld in court, to protect Americans from the dangers of climate pollution.[4] The EPA issued the CPP under the agency's authority to regulate GHG emissions as defined in the Clean Air Act, and affirmed by the Supreme Court. The EPA issued a 2009 "endangerment finding" that such emissions are a danger to human health.[5]

The GHG emission targets that the CPP would have put into place are discarded under the ACE proposal. ACE allows states to develop their own, weaker regulations, even permitting them to opt out of regulations. EPA acknowledges in the ACE proposal that the proposed rule will make air quality worse and will have a negative impact on public health.[6] State Environmental Agency Directors from fourteen states (representing 123 million people), including New York and our Department of Environmental Conservation (DEC) Commissioner Basil Seggos, stated in a letter to acting EPA chief Andrew Wheeler, "The administration's proposal abandons its obligations under the Clean Air Act to ensure that state plans address dangerous air pollution from existing pollution sources and satisfy the fundamental statutory requirement—that they achieve emission reductions commensurate with those achievable using the best system of emission reduction available. This proposal will endanger the health and welfare of our residents." [7]

It is likely that the ACE rule will result in the release of twelve times the amount of carbon dioxide into the atmosphere compared to the CPP.[8] EPA projects that the ACE proposal would result in only slight decreases during the next decade to overall emissions of pollutants, including carbon dioxide, sulfur dioxide and nitrogen oxides.[9] The analysis of ACE predicts a cut of CO2 emissions from 2005 levels by between 0.7 and 1.5 percent, or the equivalent of taking 2.7 million to 5.3 million cars off the road. Conversely, the CPP would have cut CO2 emissions by 19 percent, or the equivalent to taking 75 million cars off the road.[10]

When compared to the Clean Power Plan (CPP), ACE has a net cost to U.S. citizens of billions of dollars. EPA estimates that implementing the ACE Proposal instead of the Clean Power Plan (CPP) will cause an additional 470-1,400 premature deaths, 48,000 cases of exacerbated asthma, and 21,000 missed school days. EPA also finds that replacing the CPP with the ACE rule would result in billions of dollars of net "foregone benefits" (i.e. costs) under every scenario analyzed.[11] Researchers from Harvard University predict that the impact of this significant difference will be felt close to home, estimating that failure to reduce emissions will result in 36,000 deaths due to poor air quality, and respiratory issues for an additional 630,000 children.[12]

Approximately 90,000 asthma attacks and 3,200 premature deaths would be prevented each year under the CPP according to EPA's prior analysis. Under the ACE proposal these health co-benefits would be lost. EPA acknowledges in the ACE proposal that the proposed rule will make air quality worse and will have a negative impact on public health. "As compared to the standards of performance that it replaces . . . implementing the proposed rule is expected to increase emissions of carbon dioxide (CO2) and increase the level of emissions of certain pollutants in the atmosphere that adversely affect human health. These emissions include directly emitted fine particles sized 2.5 microns and smaller (PM2.5), sulfur dioxide (SO2), nitrogen dioxide (NOX), and mercury (Hg)."[13]

Even the EPA analysis for the ACE proposal shows that more than one thousand American lives could be lost in 2030, compared to the CPP.[14]

Acid rain deposition from emissions has been a long-standing issue for the New York Forest Preserve. In recent years, there has been a strong recovery trend. Monitoring of Adirondack waters by groups like the Adirondack Lakes Survey Corporation shows that lakes and ponds impacted by acid rain are coming back to life and wildlife in these aquatic habitats is thriving. The University at Albany Atmospheric Science Research Center, which monitors precipitation near the summit of Whiteface Mountain in the Adirondacks, has seen a remarkable decrease in acidity, which is great news for the New York State Forest Preserve.

Unfortunately, the current administration through the EPA is working diligently to undo this critical recovery by actions such as the ACE Rule and the proposal to dramatically weaken the Mercury Rule.

Upwind coal-fired power plants emit high levels of sulfur dioxide and nitrogen oxides, which are significant contributors to the formation of ozone, acid rain, and acid deposition in the Adirondacks and the Catskills.[15] These emissions react with other compounds in the air to form acids, which reach earth through rain, snow, and fog, or as dry particles.[16] The burning of bituminous coal also results in emissions of mercury.

In the Northeast, numerous acid sensitive forest and freshwater aquatic regions suffer from ecological damage and health problems associated with acid rain and acid deposition.[17] As one example, acid deposition sets off a deadly chain of events for fish. High levels of acidic deposition and high soil acidity,

to which power plant emissions contribute, occur in the forested regions in the Adirondacks and Catskills.[18] When combined with low soil calcium levels, acid deposition often fosters the release of aluminum from the soil to water bodies.[19] Aluminum, in combination with high acidity levels, is highly toxic. It disrupts the salt and water balance in fish, which can rupture blood cells and thicken blood, placing an enormous strain on internal organs, leading to illness and death.[20]

Lakes in the Adirondacks and in New England suffer from chronic or episodic acidification.[21] Elevated levels of nitric and sulfuric acid significantly reduce the water's acid-neutralizing capacity. This acidic condition reduces species diversity and the abundance of aquatic life.[22]

Acid deposition also has a deadly impact on other plant and animal life in the Northeast. Where it accelerates leaching of calcium from soil,[23] it adversely affects plant life by depleting soils of this essential nutrient. Elevated levels of acid in soil cause nutrients to leach out of trees, which can cause a nutrient imbalance, reducing the trees' ability to respond to environmental stresses such as cold weather, drought, and insect infestation.[24] At high elevations, red spruce trees have suffered serious decline as a result of acid deposition. In turn, animals that depend on plant life for food suffer as plant growth is affected. Mercury depositions in waters and soils also result in the buildup of the neurotoxin methylmercury in the food chain in lakes in the Northeast.

Smog and decreased visibility are other problems exacerbated by emissions from coal-fired power plants. Ground level ozone, or smog, is formed when nitrogen oxides and volatile organic compounds react in the presence of sunlight.[25] This smog decreases visibility for hikers and others recreating in the region. In mountains of the Northeast, on the haziest days, atmospheric sulfates contribute an estimated 70 percent of the particulate matter that impairs visibility.[26] In addition, ozone exposure is detrimental to some hiker's health. In one study, with prolonged outdoor exercise, adult hikers in New Hampshire who were exposed to low-levels of particulate matter and ozone were likely to experience significant effects on pulmonary function.[27] EPA identifies detrimental effects as including coughing, shortness of breath, and pain with inhalation, as symptoms of ozone exposure.[28]

Controlling pollution from power plants will reap important environmental benefits throughout the Northeast. Not only will it help to continue to reduce harmful acidification of lakes and rivers; it will also improve visibility and human health by decreasing low-level ozone.[29]

ACE sets a very low bar for emissions reductions. The ACE proposal lowers the bar by re-defining the Clean Air Act (CAA) mandated "best source of emissions reduction" (BSER) performance standards for existing power plant "Green House Gas" (GHG) emissions. ACE proposes that the BSER performance standard should be equal to reductions that can be achieved through on-site, heat-rate efficiency improvements. However, it is likely that this standard will fail to result in any reduction of emissions because plants that implement heat-rate improvements (HRI) are likely to run more hours than they did before the improvements, which will result in an increase of CO2 emissions that will be considered in compliance with the standard. In fact, EPA acknowledges this consequence without addressing or proposing mitigations for the ACE induced increase in emissions.[30]

ACE sets no numerical standards or targets for GHG reductions. States will be permitted to establish their own performance targets, including no standards at all. The ACE rule permits states to decide how much to cut emissions, if at all.[31]

The ACE Rule Fails to Comply with the Clean Air Act (CAA) with Regard to Reducing CO2 Emissions of Carbon Dioxide to Mitigate Climate Change

In the notice for the Affordable Clean Energy Act (ACE), EPA seeks comment on the new rule establishing emissions guidelines" to limit greenhouse gas ("GHG") emissions from fossil fuel-fired power plants, in place of the existing Clean Power Plan, 80 Fed. Reg. 64,662 (Oct. 23, 2015). *See* 82 Fed. Reg. at 61,508.

The plain language of the ACE indicates that EPA is considering interpreting section 111 (d) of the Clean Air Act inconsistently with the statute and EPA's own implementing regulations. The idea that state standards under section 111 (d) are discretionary-and may allow for more pollution than EPA's emission guidelines-is contravened by the statute, which requires EPA to set a sufficiently protective baseline. Further, narrowly focusing on improving the efficiency (heat rate) of fossil fuel-fired power plants while ignoring other ways these plants and their owners currently can reduce emissions would

also directly contravene Congress's intent and could actually *increase* annual emissions of greenhouse gases and other pollutants.

The agency's solicitation of comments on how it could lawfully allow power plants to avoid their permitting and pollution control obligations under other important Clean Air Act programs, such as New Source Review, is further evidence that EPA's approach in the ACE is fundamentally flawed. If EPA is intent on pursuing the repeal of the Clean Power Plan, the agency must design a replacement that considers how power plants operate and reduce emissions and that will lead to sufficiently substantial carbon emission reductions to address the critical problem of climate change.

In *West Virginia v. EPA* (D.C. Cir. No. 15-1363), EPA recognized that "no serious effort to address the monumental problem of climate change can succeed without meaningfully limiting power plants' C02 emissions." According to the most recent data, fossil fuel-fired power plants emit approximately 28 ·percent of U.S. greenhouse gas emissions, which is second only to the transportation sector.

The Clean Power Plan represents an important and significant step toward addressing this pollution by establishing the first nationwide emission limits on carbon dioxide from existing fossil fuel-fired power plants, which when fully implemented in 2030 would cut carbon pollution by approximately one-third from 2005 levels.

In 2006, after EPA declined to establish emission standards for these plants, New York and other states and cities sued EPA in the D.C. Circuit. *New York v. EPA* (D.C. Cir. No. 06-1322). Subsequently the Supreme Court ruled in *Massachusetts v. EPA,* 549 U.S. 497 (2007), that EPA has the authority and responsibility to regulate greenhouse gas emissions from new motor vehicles under the Clean Air Act, the D.C. Circuit remanded the power plant rulemaking at issue in *New York* back to EPA for further action.

While EPA is stalling thereby avoiding any meaningful action, and wasting taxpayer money through introduction of the ACE proposal, our country has just experienced one of the three hottest years on

record, a year that was also marked by record-breaking storms and floods, as well as damaging wildfires. Indeed, according to the National Oceanic and Atmospheric Administration, 2017 was an "historic year of weather and climate disasters," and the most expensive year on record, with costs for these severe weather and climate events totaling over $306 billion. As explained in a recent scientific publication, several of these events were caused in part or amplified by climate change. In this context, it is difficult to envision a less "serious attempt" to "secure critically important reductions in carbon dioxide from the largest emitters in the United States - fossil-fueled power plants." EPA Opp. to Stay Motions in *West Virginia v. EPA* (D.C. Cir. No. 15-1363), Doc. #1586661, at 1.

EPA is legally obligated to establish a federal baseline for greenhouse gas emission reductions from existing power plants and ensure that states establish "satisfactory" plans to achieve those reductions. 42 U.S.C. § 7411(d)(1) & (2). Consistent with this obligation, EPA's regulations require it to establish binding national emissions guidelines and ensure states plans are' at least as stringent. 40 C.P.R. § 60.24(c). Nothing about the nature of greenhouse gas emissions from power plants excuses EPA from this statutory and regulatory obligation.

In the ACE proposal, EPA wrongly asserts that it has "discretion" to "choose" whether to make mandatory federal emission reduction targets applicable to power plant greenhouse gas emissions binding on the states. The Supreme Court has made clear that EPA, the "expert agency ... best suited to serve as primary regulator of greenhouse gas emissions," is responsible for setting mandatory "emissions reductions." *American Elec. Power Co. v. Connecticut,* 564 U.S. 410, 427-28 (2011) *("AEP').* Although the Court noted that the Clean Air Act authorizes states to "take the first cut at determining how best to achieve EPA emissions standards within its domain," the Court expected that the mandatory standards themselves would be binding on the states. *Id* at 428 (emphasis added). The Clean Power Plan provided just such flexibility, by allowing states to determine how to meet the established minimum emission reductions.

Binding EPA emission guidelines are consistent with the language and structure of the Clean Air Act. Fundamentally, it is EPA, and not the states, that is required to issue guidelines establishing the level of

emission reduction it determines is achievable based on the Best System, without which the state cannot derive standards. *See* 42 U.S.C. § 7411 (d) (1). The scenario that EPA appears to propose now -in which States are free to determine for themselves what levels of emissions reductions to achieve, if any is no different from the conditions existing before enactment of the Clean Air Act. This is contrary to the legal situation that Congress sought to change by creating a role for EPA in mandating GHG emission reductions. EPA's authority to "prescribe" and "enforce" a "plan for a State where that State fails to submit a satisfactory plan" would be unnecessary if federal emission guidelines were not binding on the states. *Id* § 7 411 (d) (2).

Section 111 instructs EPA to "establish a procedure" for the submission of state plans establishing standards of performance that is similar to that provided in Clean Air Act section 7410 which establishes the system for submission of state implementation plans for national ambient air quality standards ("NAAQS"), which are unquestionably mandatory. *See id* § 7410.

Therefore, EPA must establish mandatory federal emission guidelines for greenhouse gas emissions from power plants, and states in turn must propose plans with standards that are "no less stringent," subject to specific, narrow exceptions. *See* 40 C.F.R. § 60.24(c), (f).

In addition to EPA's suggestion that it may issue "non-binding" emissions guidelines, other statements in the ACE reflect EPA's apparent abandonment of the Clean Air Act's goal of establishing a strong and mandatory federal baseline for GHG emission reductions.

One of section 111's key functions is to guard against a "race to the bottom" in which states "compete with each other in trying to attract new plants and facilities without assuring adequate control" of pollutant emissions. H.R. Rep. No. 91-1146, at 1970).

To allow the creation of such “pollution havens" would undermine the protective purpose of the Clean Air Act by allowing increases in harmful emissions that harm not only citizens of that State, but may cross state lines and injure the health and welfare of residents of other States and the planet. EPA

recognized that this concern particularly applies to the regulation of conventional pollutants and greenhouse gases from existing power plants, because companies typically own and operate plants in multiple states that are all connected to the electric grid.

By contrast, when EPA sets a floor in its emission guidelines, it protects *all* states from the harmful effects of pollution, better serving the underlying purposes of the Clean Air Act. *See Alaska Dep 't of Envt'l Conservation v. EPA,* 540 U.S. 461, 486 (2004). EPA's federal supervisory authority helps guard states against the threat of pollution from more permissive neighboring states. Accordingly, EPA's suggestions that EPA could "determine" what systems may constitute [the Best System] without defining mandatory emission limits," 82 Fed. Reg. at 61,511, or give states wide discretion to depart from EPA's emission guidelines, *id.* at 61,513, are fundamentally inconsistent with EPA's statutory role in establishing a federal emission limit. EPA itself has recently acknowledged that part of its role is to "establish" the degree of emission limitation to be reflected in the standard of performance." 82 Fed. Reg. 48,039 (proposed repeal of Clean Power Plan); *see also* 80 Fed. Reg. at 64,719 (noting that both the Clean Air Act and EPA's regulations "*require* " that the EPA's guidelines reflect the degree of GHG emission reduction achievable through the application of the best system of emission reduction").

Although EPA appropriately proposes to consider programs already implemented by states to reduce greenhouse gas emissions from power plants, 82 Fed. Reg. at 61,512, EPA fails to follow that logic to its necessary conclusion: that what power plants and states are already doing to reduce greenhouse gas emissions *must* be considered as part of the Best System when setting "achievable" emission guidelines. Moreover, the record supporting the Clean Power Plan is already replete with information regarding successful state programs.

For example, ten Northeast and mid-Atlantic States entered into the Regional Greenhouse Gas Initiative ("RGGI"), through which they agreed to limits for greenhouse gas emissions and created a market where power plants can buy and sell allowances to meet agreed-upon limits. *See* RGGI Comments, EPA-HQ-OAR-2013-0602-22395 (Nov. 5, 2014).

By encouraging shifts from power plants that generate more greenhouse gas emissions, such as oil- and coal-plants, to power plants that generate less, such as natural gas plants and renewable wind and solar resources, the RGGI states have succeeded in reducing carbon pollution from fossil-fuel fired power plants by over forty percent between 2005 and 2012. Joint Comments of 14 States, EPA-HQ-OAR-2013-0602-23597, at 18 (Dec. 1, 2014) ("State Comments"). Moreover, these greenhouse gas emissions reductions were achieved while delivering significant economic benefits and without threatening grid reliability.

Section 111 does not allow EPA to decline to address an enormous amount of dangerous air pollution simply because some states are already taking steps to regulate it. Rather, existing state programs may be incorporated into state plans that meet or exceed minimum emissions reductions established by EPA, and such programs must inform EPA's analysis of "achievable" systems of emission reductions. *See* 42 U.S.C. § 7411; *AEP,* 564 U.S. at 428. States remain free under the Clean Air Act to impose more stringent emission standards than those required by the federal baseline. 42 U.S.C. § 7416; 40 C.F.R. § 60.24(g).

EPA's ACE proposal suggests an even more constrained consideration of systems of emission reduction by focusing its requests for information almost entirely on heat rate improvements. EPA disregards its own characterization of the Clean Power Plan's Best System as "measures that can be implemented by the sources themselves." *See* 80 Fed. Reg. at 64,720. EPA's ACE proposal also ignores other demonstrated technologies that can be applied by and at sources, such as co-firing coal powerplants with natural gas. In the Clean Power Plan, EPA found that co-firing is "technically feasible and within price ranges that the EPA has found to be cost effective" and that "the resulting emission reductions could be potentially significant." 80 Fed. Reg. at 64,727. EPA decided not to include co-firing in the Best System in the Clean Power Plan because using generation-shifting to emission reduction was less expensive. *Id* at 64,727-28. If EPA is now going to reject generation-shifting in the ACE proposal, it must explain why co-firing, and any other demonstrated systems of emission reduction, is not the Best System.

EPA also downplays its own prior findings regarding the potential problems of relying on heat rate improvements alone. *See* 82 Fed. Reg. at 61,516. In the Clean Power Plan, EPA described how relying on

heat rate improvements at coal power plants, without "other incentives to reduce generation and C02 emissions," could result in coal-fired power plants being called on to operate more frequently, which would further reduce the already small emission reductions achievable solely by heat rate improvements, and therefore increase emissions of greenhouse gases and other pollutants. 80 Fed. Reg. at 64,745.

Clean Air Act section 111 (d) contemplates that EPA will establish mandatory minimum requirements for emission reductions. The Clean Power Plan incorporated EPA's understanding that the Clean Air Act and EPA's regulations required that "EPA's guidelines reflect the degree of carbon dioxide emission reduction achievable through the application of the best system of emission reduction." 80 Fed. Reg. at 64,719. EPA has recently acknowledged this interpretation of its authority, describing its role under section 111 as "establishing the degree of emission limitation to be reflected in a standard of performance." 82 Fed. Reg. at 48,039. Although EPA may preserve flexibility for States to reflect their unique situations, as it did in the Clean Power Plan, then EPA must establish baseline mandatory minimum emission limitations for greenhouse gas emissions from power plants.

The provision in section 111 (d) authorizing EPA to consider the "remaining useful lives of the sources in the category of sources" to which the emission standard applies does not excuse EPA from establishing broadly-applicable, mandatory standards. *See, e.g.,* 82 Fed. Reg. at 61,511. Although states may retain the flexibility to account for the "remaining useful life" of power plants within their borders, where appropriate, EPA must assure that all states meet minimum reduction levels consistent with the Best System.

In the Clean Power Plan, EPA recognized that Carbon Capture and Storage (CCS}, like co-firing with natural gas, was "technically feasible and within price ranges that the EPA has found to be cost effective," and therefore could be implemented by a segment of existing power plants, and that "the resulting emission reductions could be potentially significant." 80 Fed. Reg. at 64,727.

EPA declined to treat CCS as part of the Best System approach, however, because other, less expensive, systems of emission reduction were available. *Id.* Now that EPA has proposed to reject those less

expensive systems, it must reasonably explain why CCS is not part of the Best System. *See State Farm,* 463 U.S. at 43. Both the Clean Power Plan record and the record for the Clean Air Act section 111 (b) rule for greenhouse gas emissions from new or modified power plants support the availability of CCS. *See, e.g.,* 80 Fed. Reg. at 64,545-48; RTC chapter 3.8, at 174--227.

EPA seeks comment on the potential interactions between ACE's heat rate improvement "within the fence" means of limiting greenhouse gas emissions from existing power plants with the New Source Review ("NSR") permitting and pollution control requirements in section 165 of the Clean Air Act, 42 U.S.C. § 7475. Specifically, EPA asks about "actions that can be taken to harmonize and streamline the NSR applicability and/ or the NSR permitting process with a potential new rule." 82 Fed. Reg. at 61,519.

In the ACE proposal. EPA is primarily concerned with the scenario in which a power plant owner undertakes a heat rate improvement based on hourly emissions yet triggers New Source Review permitting and pollution control requirements because of projected higher annual emissions of greenhouse gases (or other pollutants) following such a project.

EPA appears to recognize that a slightly-more efficient power plant could be prioritized in the electricity generating operations and by running more often, increase emissions of sulfur dioxide, nitrogen oxide, particulates and mercury *See id* at 61,518.

Under the NSR provisions of the Clean Air Act, an existing power plant that undergoes a non-routine modification that would result in an increase in the plant's annual pollution must comply with New Source Review requirements. 42 U.S.C. § 7475. It is well established that in light of the Clean Air Act's broad definition of "modification," 42 U.S.C. §§ 7479(2)(C), 7411(a)(4), EPA lacks the authority to exempt projects that would result in annual emission increases from New Source Review permitting and pollution control requirements. *See New York v. EPA,* 443 F.3d 880 (D.C. Cir. 2006) (vacating EPA rule exempting from New Source Review certain equipment replacements that did not exceed a dollar threshold); *New York v. EPA,* 413 F.3d 3 (D.C. Cir. 2005) (finding unlawful EPA attempts to exclude "clean units" and pollution control projects from New Source Review). Indeed, Congress enacted the

New Source Review program in 1977 because it was dissatisfied with the Act's existing provisions, including section 111, as a sufficient mechanism to address pollution from major stationary sources. *See Environmental Defense Fund v. Duke Energy Corp.,* 549 U.S. 561, 567-68 (2007); *New York,* 413 F.3d at 10.

In fact, EPA and states have brought New Source Review enforcement cases based on increased actual emissions resulting from the types of heat rate improvement projects listed in EPA's Table 1, such as replacing or upgrading economizers and coal pulverizers, 82 Fed. Reg. at 61,514. *See, e.g., United States v. Ohio Edison,* 276 F. Supp. 2d 829, 856-57, 870-72, 882 (S.D.' Ohio 2003) (economizer and pulverizer replacement resulted in significant emission increases of sulfur dioxide and/ or nitrogen oxides); *see also* Partial Consent Decree in *United States v. Cinergy,* (S.D .Ind., Civil Action No. 1:99-cv-01693) at 5 (noting finding of liability based on pulverizer projects), available at: https://www.epa."gov/sites/production/files/documents/dukeenergy-cd.pdf. As the court concluded in *Ohio Edison:*

"Increased utilization means that more coal is burned and more emissions created. The impact of improved heat rate resulting from the projects is indeed largely cancelled out by the increased utilization."

See 276 F. Supp. 2d at 880; *see also* National Academy of Public Administration, *A Breath of Fresh Air: Reviving the New Source Review Program* 94 (Apr. 2003) ("Marginal efficiency improvements are no substitute for the installation of modern pollution controls").

Resources for the Future compared emission reductions of carbon dioxide, nitrogen oxides, and sulfur dioxide expected under the Clean Power Plan to emissions reductions anticipated under a possible replacement rule consistent with EPA's Proposed Repeal of the Clean Power Plan and the ACE methodology citing studies by Driscoll et al. (2015) and Staudt and Macedonia (2014). The authors of the analysis concluded that a replacement rule (like ACE) based on heat-rate improvements alone would result in a small fraction of the carbon pollution reductions that would be achieved overall in the power

sector under the Clean Power Plan and further that the expected heat rate improvement hourly replacement rule (ACE) would lead to increased utilization of coal plants and an overall annual increase in sulfur dioxide emissions nationally.

Of course, the proper EPA response to such an outcome is not to seek to enable power plants to avoid complying with New Source Review, but to promulgate an emissions guideline that actually *reduces emissions,* as the Clean Air Act requires. In promulgating the Clean Power Plan, EPA did not limit itself to considering potential emission reductions from heat rate improvements, but considered additional, proven methods of carbon pollution reduction from electricity generating units, including reducing the use of higher-emitting coal fired and oil fired generation, and correspondingly, increasing the use of lower-emitting generation methods, such as natural gas, wind and solar power.

The Clean Power Plan thus incorporated a well-thought out analysis that reflected the way that power plants operate (and, in the case of fossil fuel-fired plants, pollute) on an interconnected electricity grid. The potential pollution increases under the ACE approach underscores the agency's fundamental flaw in choosing to ignore both the way the industry operates and the proven methods these sources have used to cut greenhouse gases.

Unlike the ACE approach, the Clean Power Plan recognized that adequately demonstrated BEST Systems of carbon GHG emissions reductions and mandatory levels of emission reductions, while maintaining flexibility could fulfill EPA's statutory duty to achieve such GHG reductions. If EPA fails to rescind ACE and the courts do not reject both the agency's misguided course on repealing the Clean Power Plan and its replacement with ACE, EPA must at least start with the principle that any replacement rule must also result in meaningful GHF pollution cuts to address climate change harms. EPA must draft a replacement rule that would allow and incentivize “outside the fence” demonstrated system wide methods of reducing carbon dioxide emissions to address one of our country's largest sources of carbon pollution.

<u>New Source Review (NSR)</u>

For decades, the coal industry has been attempting to change the process used to determine whether or not a power-generating facility must incorporate emission reduction devices during power plant maintenance and upgrades, under New Source Review (NSR) regulations. **Using the proposed ACE rule, the coal industry has succeeded in replacing the current standard of an annual emissions rate increase test with an hourly test. This creates a loophole to avoid a threshold trigger mandating the use of emission reduction devices.**

ADK filed a legal action in the federal courts to challenge the very same changes in NSR acid rain provisions that are contained in the ACE proposal. The industry's objective then (and now) was to allow coal-burning power plants to evade the NSR requirement to install flue gas scrubbers, precipitators, and other air pollution control equipment when owners of these plants proposed to make major service life extension projects.

We won at every level, including the U.S. Supreme Court, and as a result of this successful defense of the NSR requirements, pollution control equipment was installed on a number of coal-burning plants, many plants were shut down and replaced by natural gas–powered generating plants, and some plants were retrofitted to burn natural gas. The effect was to reduce acid deposition, particulate matter, and smog.

We also successfully defended EPA regulations to reduce the amount of mercury emitted by coal-burning plants. As a result, many plant owners modified their equipment when they made other NSR modifications, or they switched to natural gas, which does not create mercury emissions.

ADK's membership has a critical stake in the continued vitality of the federal Clean Air Act's NSR requirements applicable to fossil fueled electric power generating plants. ADK represents over 30,000 hikers, backpackers, cross country skiers, and paddlers. Federal enforcement of the NSR program is a catalyst for important reductions in air pollution emissions that are harmful to human communities, aquatic life, and forest ecosystems in the Adirondacks and Catskills and other wild lands and waters throughout the Northeast.

ADK strongly opposes the new proposed test option would give coal-burning power plant operators an opportunity to game the system by undertaking major service life extension projects without a pre-modification NSR permit and avoid the requirement to retrofit air pollution reduction technology by keeping within an hourly rate, but operating for longer time periods and materially increasing the actual, annual amount of air pollution, acid deposition and mercury emitted.

Congress established the NSR program as part of the 1977 Clean Air Act amendments and modified it in the 1990 amendments. NSR is a preconstruction permitting program that assures the dual goals of maintaining and attaining air quality and providing for economic growth. These goals are to be achieved through installation of modern pollution control devices at new plants and at existing plants that have undergone a major modification. For existing sources, there is a two-step process to determine whether the modification is subject to permit review. First it must be determined whether there is a physical change or change in the method of operation. The second step is whether there is an emissions increase. The current NSR program measures emissions increase by comparing actual annual emissions to projected annual emissions.

The ACE proposal includes a major change to the New Source Review (NSR) program permitting rules that is likely to increase air pollution. NSR is a permitting process intended to protect air quality. For decades, the coal industry has been attempting to change the process used to determine whether or not a power-generating facility must incorporate emission reduction devices during power plant maintenance and upgrades under NSR regulations. ACE proposes to replace the current standard of an annual emissions rate increase test with an hourly test. This creates a loophole to avoid a threshold trigger mandating the use of emission reduction devices. This change will allow facilities to increase emissions without triggering NSR requirements.[32]

Earlier this year, Paul Baldauf, assistant commissioner of the New Jersey Department of Environmental Protection, addressed this issue at a hearing that covered legislation that would also eliminate the annual NSR test, "NSR amendments, as proposed, could result in the extension of the life of older power plants, with modifications that result in small improvements to energy efficiency, while causing significant

increases in annual emissions of air contaminants, including carbon dioxide, sulfur dioxide, nitrogen oxides, particulates, mercury, and other hazardous air pollutants," testified Baldauf. "That would be inconsistent with the CAA, which requires that sources install best available control technology, lowest achievable emission rate, and maximum achievable control technology when modifying equipment facilities, including energy efficiency modifications that would increase emissions of applicable air contaminants."[33]

EPA's proposed maximum "achievable" hourly emissions rate, similar to the one advocated by the utility defendants in the NSR enforcement cases and by the Administration in its failed "Clear Skies" legislation, conflicts with the plain language of the statute, controlling precedent of the D.C. Circuit, and longstanding Agency position. In fact, EPA's Office of Air Remediation (OAR) that adopting such a test would lead to significant emission increases escaping NSR review. Despite the analysis of its air policy office and the Agency's previous findings from the NSR enforcement cases that modifications that do not increase the maximum hourly rate nonetheless cause significant increases in annual emissions[34] – resulting in harm to public health and the environment – EPA OAR has failed to evaluate the environmental and public health consequences of the ACE proposal.

Further, in regards to EPA proposed maximum "achieved" hourly emissions test, this test also diverges from the plain language of the statute, which requires that NSR applicability be determined measuring a source's actual annual emissions prior to and after the physical and operational change. *United States v. Ohio Edison,* 276 F.Supp.2d 829, 865 (ED Ohio 2003). Additionally, the maximum "achieved" test would lead to degraded air quality because unremediated sources could undertake major refurbishments allowing them to increase utilization of their plants without triggering NSR pollution control requirements that would require the installation of air pollution control technology. *Ohio Edison, supra,* 276 F.Supp.2d at 875-76.

The method for calculating actual emissions increases for NSR must be consistent with the statutory program under which it was created. NSR is "a permitting process that imposes specific pollution control requirements depending upon the geographic location of the source." *New York v. E.P.A.*, 2006

WL 662746 (D.C. Cir. 2006). EPA's ACE proposal is not consistent with said statutory program and should not be adopted.

Addressing air quality in attainment areas, or areas that are already "clean," Congress introduced the statutory Prevention of Significant Deterioration (PSD) program in the 1977 Amendments to the CAA to ensure that the air quality in such areas would not degrade. *Alaska Dept. Of Env'l Cons. v. EPA*, 540 U.S. 461, 470-71 (2004). Congress was expressly concerned with the quality of air in "areas of special national or regional natural, recreational, scenic, or historic value." 42 U.S.C. § 7470. The PSD legislation requires major modifications to or construction of pollution sources in attainment areas to install the 'best available pollution control technology' ("BACT"). Installation of this technology during modification of existing coal fired power plants would control the emissions of, *inter alia*, nitrogen oxide and sulfur dioxides, which would also decrease emissions of mercury and low level ozone.

In the 1977 amendments to the Clean Air Act, Congress provided a qualified exemption to existing sources from PSD requirements, arising out of the recognition that "it is not physically or economically feasible to retrofit . . . control technology" for some of the older or smaller sources. H.R. Rep. No. 94-1175 at 159 (1976). Congress was confident, however, that older plants would over time, either shut down, or by modifying, be required to control their pollution.[35]

No one can seriously challenge that Congress's 1977 amendments to the CAA created "a law intended to limit increases in air pollution." *New York v. EPA*, 2006 WL 662746, * 3. (D.C. Cir.). As noted above, modification of stationary sources triggers the PSD requirements. The Clean Air Act defines "modification" as "any physical change in, or change in the method of operation of, a stationary source *which increases the amount of any air pollutant emitted by such source* . . .." 42 U.S.C. § 7411(a)(4) (emphasis added). Notably, Congress used the term "amount" rather than "rate" to describe the emission increase necessary to trigger PSD requirements.

The fundamental purpose of the PSD program is to regulate and protect local air quality, 42 U.S.C. 7470 – making it critical that any test of "increase in emissions" measure the actual changes in emissions. See

Alabama Power v. Costle, 636 F.2d 323, 353 (DC Cir. 1979) *New York,* 413 F.3d at 39-40 (CAA forecloses emissions-increase test based on "potential or allowable emission").

Both the maximum achievable and maximum achieved emissions tests would conflict with the definition of "modification" because these tests would not be a measure of actual emissions. As the D.C. Circuit held in *New York v. EPA*, 413 f.3d 3 (D.C. Cir. 2005), "the CAA unambiguously defines 'increases' [under CAA §111(a)(4)] in terms of actual emissions." 413 F3d at 39. The court rejected EPA's interpretation that emissions increases under NSR can be measured using allowable emissions. The court instead gave effect to the plain meaning of the term "emitted" in Section 111(a)(4), which refers to pollution that a source has *actually* generated. Id. at 39-40. Further, the word "amount" in Section 111(a)(4) as used on the phrase "the *amount* of any air pollutant *emitted* by [the] source" further compelled the conclusion that Congress intended the emissions test to focus on whether actual emissions increased. It is clear that Congress intended that an increase in the total, actual amount of emissions released by the modified power plant be the trigger for the obligation to install air pollution control technology or other means of compliance with the NSR statutes and regulations.
Congress designed the NSR statutory provisions to be "concerned with increases in total annual emissions, to ensure that operators of regulatory sources in relatively unpolluted areas would not allow a decline of air quality to the minimum level permitted by NAAQS." *Wisconsin Electric Power Co. v. Reilly,* 893 F.2d 901, 904 (7th Cir. 1990) (emphasis added). Congress provided that a modification could be exempted from NSR's air quality analysis as long as the source installed BACT and thereby limited its post-modification burden on air quality to "less than fifty tons per year." 42 U.S.C. §7475(b) (emphasis added).

The NSR provisions would be powerless to protect against many real and severe threats to air quality if preconstruction review were only required for physical changes that increase a source's hourly emissions rate, because "more hours of operation results in increased emissions" even where the hourly emissions rate remains constant. *United States v. Ohio Edison Co.,* 276 Supp. 2d at 869*; accord Puerto Rican Cement Co. v. EPA,* 889 F.2d 292, 29. The statutory NSR provisions require NSR for any physical change that increases actual, annual emissions. Moreover, an hourly-rate test would fundamentally disconnect

the "modification" definition from the substantive, statutory provisions governing NSR. Therefore, a physical change that increases actual, annual emissions must trigger NSR even if it does not increase the hourly emissions rate.

In each of the NSR enforcement cases that EPA brought in 1999-2000 against power companies, EPA found that the power plants performed modifications resulting in hundreds and even thousands of tons of increased emissions without obtaining NSR permits or installing pollution controls, thereby thwarting Congress' goal of triggering NSR when emissions increase.

In all of the NSR enforcement cases brought by EPA against coal fired utilities EPA made the following allegations:

> As a result of Defendants' continued operation of these plants following these unlawful modifications, and in the absence of appropriate controls, massive amounts of sulfur dioxide, nitrogen oxides, and particulate matter have been, and still are being, released into the atmosphere aggravating air pollution locally and far downwind from these plants. Defendants' violations, alone and in combination with similar violations at other coal-fired electric power plants, have been significant contributors to some of the most severe environmental problems facing the nation today.

See United States' Second Amended Complaint in *United States v. American Electric Power Service Corp.,* Case No. C2-99-1182 (S.D. Ohio)(same for actions against the Tennessee Valley Authority (TVA), Ohio Edison, Cinergy, Illinois Power, Southern Indiana Gas and Electric, and Duke Energy). In all of these cases, the defendant utilities argued that because they had not increased their maximum achievable hourly emissions, they had not triggered the NSR requirements. In response, EPA took the position that such an emissions test would effectively render NSR a nullity for modifications because the provision would essentially never be triggered.

For example, in the *Cinergy* case, EPA argued that determining NSR applicability using a maximum achievable hourly emissions test would allow upgrades to go forward causing maximum emissions increase:

> [T]he PSD annual emissions test which considers both hourly rate and hours of operation is consistent with the purposes of PSD because a project that enables a source to increase its hours of operation could *significantly increase total emissions to the ambient air without effecting hourly rates.* The interpretation advanced by the utility industry simply ignores this possibility. Instead, *an hourly rate test would turn a blind eye to potentially massive quantities of increase annual emissions* by simply assuming that hours of operation following a change 'remain constant' so long as the hourly rate does not first change.

Memorandum in Support of United States' Motion for Partial Summary Judgment on Emissions Test (Dec. 17, 2004) in *United States v. Cinergy Corp.,* Civil Action No. IP99-1693 (S.D. Ind.) at 34-35 (emphasis added). The Seventh Circuit upheld that interpretation. *United States v. Cinergy Corp.*, 458 F.3d 705 (7th Cir. 2006).

The EPA OAR has failed to properly analyze whether its proposed NSR revisions will result in air quality degradation in the Northeast region, especially New York, from increased sulfur dioxide and nitrogen oxide emissions, despite evidence from the enforcement cases that such an adverse impact would occur if such a test were used.

EPA appears to approach the impact of its proposed revisions to NSR based on the assumption that as long as emissions decrease nationally, any local or regional emissions increases that occur as a result of modifications at a particular plant are not of any concern. This approach completely ignores the fact that NSR focuses on local and regional air quality. Even if power plant emissions of sulfur dioxide and nitrogen oxide are declining nationally, this means little to a state or a citizen downwind of a power plant that takes advantage of the hourly emissions tests to modify its operations so that it can increase its utilization and boost actual emissions.

EPA's proposed NSR revisions to adopt maximum achievable and maximum achieved hourly emissions tests will allow physical increases in emissions of hundreds, if not thousands of tons of sulfur dioxide and nitrogen oxides and afford the emitting power plants "vistas of indefinite immunity" from the NSR requirement to install air pollution control technology. This rule change gives the owners an opportunity to game the system by doing major service life extension projects without a pre-modification NSR permit and avoid the requirement to retrofit air pollution reduction technology by keeping within an hourly rate, but operating for longer time periods and materially increasing the actual, annual amount of air pollution, acid deposition and mercury emitted.

If adopted, EPA's ACE proposal will permit the rebuilding of deteriorating coal burning power plants now operating without scrubbers and increase the amount of a source's pollution by thousands of tons per year, as long as the changes do not alter the hourly rate of emissions. These hourly tests would frustrate the goals of the Clean Air Act because many fewer sources will trigger NSR and have to install pollution controls to reduce their emissions. This will lead to degraded air quality locally and regionally, and enable older, poorly controlled sources to continue to operate without installing state of the art controls.

In a 2005 proposal, EPA held that PSD must contain hourly tests, like NSPS. However, the U.S. Supreme Court in *Duke Energy* struck this proposal down. It held that the definition of modification under the PSD regulations could not be taken to track that under the NSPS regulations. In other words, because the NSPS regulations used the calculation of hourly emissions increases, and the PSD regulations used the calculation of annual emissions increases, one could not use the hourly emissions increases under PSD simply because it is the allowed method under NSPS. *Id.* The Court stated that while the 1980 PSD regulations may be no seamless narrative, they clearly do not define a "major modification" in terms of an increase in the "hourly emissions rate." *Id.* at 1434. When a rate is mentioned in the regulatory definitions, the rate is annual, not hourly. *Id.* This proposed rule completely ignores this ruling of the Supreme Court.

The change to NSR regulations in the ACE proposal is nearly identical to the proposed rule that the Supreme Court invalidated in *Duke Energy*. In that case, one of the main questions was can a power plant undertake physical changes without complying with the PSD program that allows for an increase in its annual emissions rate as long as the hourly emissions rate does not increase. The Court held that it cannot.

EPA is ignoring the decision of the Supreme Court in *Duke Energy* in which the Court clearly stated that the test for whether or not NSR applies in the PSD context is an annual emissions rate not an hourly rate.

The proposed rule attempts to simplify NSR applicability determinations by conforming NSR applicability determinations with NSPS applicability determinations. Again, this is exactly the issue that the Supreme Court resolved in the *Duke Energy* case. The Supreme Court held that the NSPS and PSD regulations differ and they cannot be read together to apply an hourly emissions test to PSD. The proposed rule would do exactly what the Supreme Court ruled EPA cannot do.

This proposed rule fails to comply with the Clean Air Act (CAA), ignores the U.S. Supreme Court decision in *Environmental Defense, et al. v. Duke Energy, et al.,* 127 S. Ct. 1423 (2007), ignores the D.C. Circuit Court of Appeals decision in *New York, et al. v. EPA, et al.,* 443 F.3d 880 (D.C. Cir. 2006) (*NSR II*), and fails to promote the health, safety and welfare of the public and the environment.

This result is not consistent with the intent of Congress in enacting the Clean Air Act and subsequent amendments. See *WEPCo.,* 893 F.2d at 909. EPA's proposed changes to the NSR program construe the Clean Air Act in a manner which is directly at odds with the mandate to prevent increases in pollution, and will allow excessive and controllable amounts of pollutants to continue to be emitted by old and dirty power plants even if the plant is upgraded to extend its service life for decades. The failure to apply the proper measure of increased emissions under PSD review compelled by the terms of the Clean Air Act will result in substantial negative impacts on vital environmental and natural resources including the

Adirondacks and the Catskills, and other wild lands and waters throughout the northeastern United States.

The environmental implications of EPA's proposed NSR revisions are considerable. Most of the coal-burning power plants operating in this country were built before 1990 with more than half built before 1980—well beyond the 30 year life expectancy of these plants. These aging plants "are up to ten times dirtier than new power plants built today."[36] One government study (December 2000) analyzing the emission reductions and price implications of NSR enforcement actions by the Justice Department and the states demonstrated that broadening these actions to address all non-NSR compliant electrical generating plants could have potentially decreased nitrogen oxide emissions by 65 percent by 2020 and sulfur dioxide by 84 percent by 2020, as compared to 2000 emission levels.[37]

EPA's proposed changes to the NSR program will allow dirty and aging power plants to make major renovations that prolong and increase their service lives and hours of operation, increasing the actual amount of emissions of harmful pollutants, and evading the NSR requirement to install modern pollution control devices that are required for modified power plants. This directly contravenes the text, structure, and purpose of the CAA's NSR program. The net result of EPA's approach would increase, rather than *limit* the actual amount of air pollution emitted, which cannot be what Congress intended for the CAA. Aging power plants already emit more pollutants than those currently required to have pollution control equipment, and by requiring aging power plants to retrofit only when their hourly rate of pollution increases, they will be allowed to emit excessive amounts of pollutants for greater periods of time, yielding an uncontrovertable net increase in pollutants. By contrast, Congress' design anticipated that these dirty plants would either close, or when modified to extend their operating lives, be required to control, and reduce their emissions. Allowing such plants to escape statutory NSR obligations, will not facilitate protection of the air in "areas of special national or regional natural, recreational, scenic, or historic value," 42 U.S.C. § 7470, but rather will impede such protection.

For the reasons as explained above, we ask that EPA's proposed revisions to the NSR program be rejected.

Emissions Must Stop: Clearly, we must end harmful emissions from coal-fired power plants. In 2018, atmospheric concentrations of carbon dioxide (CO2) exceeded 411 parts per million (ppm), a value that pushes us closer to extremely dangerous concentration levels, compared to 280 ppm in 1880 -- a 46 percent increase in a short period of time.[38] While it is true that the Earth in its history had much higher atmospheric concentrations of CO2, these were not environments in which human beings or many of our current species existed. At the boundary of Eocene-Oligocene Epochs, around 34 million years ago,[39] when atmospheric carbon dioxide was at much higher levels, the earth was a much different place with high temperatures, high precipitation, and no ice. The changes we are seeing now are happening very quickly, in terms of geologic time and trends, and are clearly connected to human activity through the burning of fossil fuels and production of greenhouse gas emissions.

The proposed ACE Rule and the weakening of the Mercury Rule are actions in the wrong direction at a critical time. When we should be working to protect the Adirondacks and Catskills, the health of our families and communities, and the future sustainability of life on Earth, these rules create loopholes for industry to continue to pollute and exacerbate atmospheric CO2 that is already too high, increase toxic mercury deposition, and continue to cause harmful emissions of sulfur dioxide and nitrogen oxides.

The legal fate of the ACE depends on the D.C. Circuit Court of Appeals. The D.C. Circuit granted the EPA's request to put CPP litigation on hold until the ACE rule could be proposed and considered. The litigation involving the CPP questions whether Section 111(d) of the CAA authorized EPA to issue quantitative emission guidelines based on a BSER that includes "beyond the fence line" measures such as fuel switching. Under ACE, EPA has now decided that the CAA does not give them such authority. This is why EPA confines the BSER to on-site heat rate improvements. However, it remains to be seen if the D.C. Circuit will agree with EPA's new interpretation.[40]

The ACE proposal will not stop the demise of the coal industry as EPA and the Trump administration hope. The coal industry has been in decline since at least 2010 with almost 40 percent of the coal-fired power plants being retired. The decline has been driven by numerous factors, including

the decreasing price of natural gas and renewables, consumer preferences, and controls on conventional air pollutants. Market forces will continue to drive this decline.[41]

It is very unfortunate that the ACE proposal is intended to give new life to coal-burning electric power plants that were being phased out or converted to run on natural gas, which is increasingly cheaper and more plentiful. Renewable energy sources such as solar and wind are rapidly increasing their share of the electric-generation market. EPA must not implement the ACE rule or the NSR changes the rule proposes. ADK intends to join in litigation to challenge the ACE rule in order to protect our 30,000 members, their homes and communities, and the wildlands that they enjoy and work to protect.

Thank you for considering the above comments.

Sincerely,

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July 9, 2007

Attention Docket ID No. EPA-HQ-OAR-2005-0163
U.S. Environmental Protection Agency
EPA West (Air Docket)
1200 Pennsylvania Avenue, NW
Mail code: 6102T
Washington DC, 20460

RE: Docket ID No.: EPA-HQ-OAR-2005-0163

To Whom It May Concern:

On behalf of the Adirondack Mountain Club (ADK) and the Chesapeake Bay Foundation, Inc. (CBF), we would like to take this opportunity to comment on the Environmental Protection Agency's (EPA) proposal to change the emissions increase test used to determine if the New Source Review (NSR) permitting program would apply when an existing power plant makes a physical or operational change.

ADK's membership has a critical stake in the continued vitality of the federal Clean Air Act's NSR requirements applicable to fossil fueled electric power generating plants. ADK represents over 30,000 hikers, backpackers, cross country skiers, and paddlers. Federal enforcement of the NSR program is a catalyst for important reductions in air pollution emissions that are harmful to human communities, aquatic life, and forest ecosystems in the Adirondacks and Catskills and other wild lands and waters throughout the Northeast.

The CBF is the only independent private nonprofit organization dedicated solely to restoring and protecting the Chesapeake Bay and its tributary rivers. Since 1967, CBF's goal has been to improve water quality by reducing pollution. The Chesapeake Bay is the largest and most biologically diverse estuary in North America. The Chesapeake Bay watershed covers portions of 6 states (Delaware, Maryland, New York, Pennsylvania, Virginia and West Virginia) and the District of Columbia. The Chesapeake Bay proper is approximately 200 miles long, stretching from Havre de Grace, Maryland, to Norfolk, Virginia. The Bay watershed encompasses 64,000 square miles and some or all of six states and the District of Columbia. The Chesapeake Bay's

airshed is even larger – by 6.5 times – covering roughly 1,081,600 square km (418,000 miles) in size and touching thirteen states.

As stated in EPA's fact sheet on this proposal, EPA is refining the emissions increase test set forth in its October 2005 proposal. In its October 2005 proposal, EPA proposed an hourly emissions increase test alone, in which EPA would remove the annual emissions increase test in the current regulations and an electric generating unit (EGU) would be subject to NSR only if the hourly emissions would increase after a physical or operational change. EPA's current supplemental proposal includes a new preferred option which would exempt an electric generating unit (EGU) from compliance with the requirements of NSR if a physical or operational change would not increase the EGU's hourly emissions. The annual emissions test would only be used if hourly emissions increased.

ADK and CBF strongly oppose both the October 2005 test option as well as the new supplemental preferred option. Both the 2005 test option and the new proposed test option would give power plant operators an opportunity to game the system by undertaking major service life extension projects without a pre-modification NSR permit and avoid the requirement to retrofit air pollution reduction technology by keeping within an hourly rate, but operating for longer time periods and materially increasing the actual, annual amount of air pollution, acid deposition and mercury emitted.

As stated in EPA's Fact Sheet on this proposed NSR supplemental test option, Congress established the NSR program as part of the 1977 Clean Air Act amendments and modified it in the 1990 amendments. NSR is a preconstruction permitting program that assures the dual goals of maintaining and attaining air quality and providing for economic growth. These goals are to be achieved through installation of modern pollution control devices at new plants and at existing plants that have undergone a major modification. For existing sources, there is a two-step process to determine whether the modification is subject to permit review. First it must be determined whether there is a physical change or change in the method of operation. The second step is whether there is an emissions increase. The current NSR program measures emissions increase by comparing actual annual emissions to projected annual emissions.

EPA's proposed maximum "achievable" hourly emissions rate, similar to the one advocated by the utility defendants in the NSR enforcement cases and by the Administration in its failed "Clear Skies" legislation, conflicts with the plain language of the statute, controlling precedent of the D.C. Circuit, and longstanding Agency position. In fact, EPA's Office of Air Remediation (OAR) concluded less than four years ago that adopting such a test would lead to significant emission increases escaping NSR review. Despite the analysis of its air policy office and the Agency's previous findings from the NSR enforcement cases that modifications that do not increase the maximum hourly rate nonetheless cause significant increases in annual emissions[1] – resulting in harm to public health and the environment – EPA OAR has failed to evaluate the environmental and public health consequences of this proposal.

Further, in regards to EPA proposed maximum "achieved" hourly emissions test, this test also diverges from the plain language of the statute, which requires that NSR applicability be determined measuring a source's actual annual emissions prior to and after the physical and operational change. *United States v. Ohio Edison,* 276 F.Supp.2d 829, 865 (ED Ohio 2003). Additionally, the maximum "achieved" test would lead to degraded air quality because unremediated sources could undertake major refurbishments allowing them to increase utilization of their plants without triggering NSR pollution control requirements that would require the installation of air pollution control technology. *Ohio Edison, supra,* 276 F.Supp.2d at 875-76.

The method for calculating actual emissions increases for NSR must be consistent with the statutory program under which it was created. NSR is "a permitting process that imposes specific pollution control requirements depending upon the geographic location of the source." *New York v. E.P.A.*, 2006 WL 662746 (D.C. Cir. 2006). Both EPA's 2005 October proposal and the supplemental proposal are not consistent with said statutory program and should not be adopted.

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[1] *United States v. Cinergy Corp.*, 458 F.3d 705 (7th Cir. 2006).

Addressing air quality in attainment areas, or areas that are already "clean," Congress introduced the statutory Prevention of Significant Deterioration (PSD) program in the 1977 Amendments to the CAA to ensure that the air quality in such areas would not degrade. *Alaska Dept. Of Env'l Cons. v. EPA*, 540 U.S. 461, 470-71 (2004). Congress was expressly concerned with the quality of air in "areas of special national or regional natural, recreational, scenic, or historic value." 42 U.S.C. § 7470. The PSD legislation requires major modifications to or construction of pollution sources in attainment areas to install the 'best available pollution control technology' ("BACT"). Installation of this technology during modification of existing coal fired power plants would control the emissions of, *inter alia*, nitrogen oxide and sulfur dioxides, which would also decrease emissions of mercury and low level ozone.

In the 1977 amendments to the Clean Air Act, Congress provided a qualified exemption to existing sources from PSD requirements, arising out of the recognition that "it is not physically or economically feasible to retrofit . . . control technology" for some of the older or smaller sources. H.R. Rep. No. 94-1175 at 159 (1976). Congress was confident, however, that older plants would over time, either shut down, or by modifying, be required to control their pollution.[2]

No one can seriously challenge that Congress's 1977 amendments to the CAA created "a law intended to limit increases in air pollution." *New York v. EPA*, 2006 WL 662746, * 3. (D.C. Cir.). As noted above, modification of stationary sources triggers the PSD requirements. The Clean Air Act defines "modification" as "any physical change in, or change in the method of operation of, a stationary source *which increases the amount of any air pollutant emitted by such source* . . .." 42 U.S.C. § 7411(a)(4) (emphasis added). Notably, Congress used the term "amount" rather than "rate" to describe the emission increase necessary to trigger PSD requirements.

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[2] *See* H.R.Rep. No. 95-294, at 211 (1977), reprinted in 1977 U.S.C.C.A.N. 1077, 1290; S. Rep. No. 127, at *128 ("approximately 200 coal-fired plants [are] over 20 years of age and most "will be retired in the next 5 to 20 years"); Victor B. Flatt, Kim Diana Connolly, *'Grandfathered' Air Pollution Sources and Pollution Control: New Source Review Under the Clean Air Act*, (March 2005) Center for Progressive Regulation White Paper # 504, *at* http://www.progressiveregulation.org/articles/NSR_504.pdf.

The fundamental purpose of the PSD program is to regulate and protect local air quality, 42 U.S.C. 7470 – making it critical that any test of "increase in emissions" measure the actual changes in emissions. See *Alabama Power v. Costle,* 636 F.2d 323, 353 (DC Cir. 1979) *New York,* 413 F.3d at 39-40 (CAA forecloses emissions-increase test based on "potential or allowable emission").

Both the maximum achievable and maximum achieved emissions tests would conflict with the definition of "modification" because these tests would not be a measure of actual emissions. As the D.C. Circuit held last year in *New York v. EPA*, 413 f.3d 3 (D.C. Cir. 2005), "the CAA unambiguously defines 'increases' [under CAA §111(a)(4)] in terms of actual emissions." 413 F3d at 39. The court rejected EPA's interpretation that emissions increases under NSR can be measured using allowable emissions. The court instead gave effect to the plain meaning of the term "emitted" in Section 111(a)(4), which refers to pollution that a source has *actually* generated. Id. at 39-40. Further, the word "amount" in Section 111(a)(4) as used on the phrase "the *amount* of any air pollutant *emitted* by [the] source" further compelled the conclusion that Congress intended the emissions test to focus on whether actual emissions increased. It is clear that Congress intended that an increase in the total, actual amount of emissions released by the modified power plant be the trigger for the obligation to install air pollution control technology or other means of compliance with the NSR statutes and regulations.

Congress designed the NSR statutory provisions to be "concerned with increases in total annual emissions, to ensure that operators of regulatory sources in relatively unpolluted areas would not allow a decline of air quality to the minimum level permitted by NAAQS." *Wisconsin Electric Power Co. v. Reilly,* 893 F.2d 901, 904 (7th Cir. 1990) (emphasis added). Congress provided that a modification could be exempted from NSR's air quality analysis as long as the source installed BACT and thereby limited its post-modification burden on air quality to "less than fifty tons per year." 42 U.S.C. §7475(b) (emphasis added).

The NSR provisions would be powerless to protect against many real and severe threats to air quality if preconstruction review were only required for physical changes that increase a source's

hourly emissions rate, because "more hours of operation results in increased emissions" even where the hourly emissions rate remains constant. *United States v. Ohio Edison Co.,* 276 Supp. 2d at 869*; accord Puerto Rican Cement Co. v. EPA,* 889 F.2d 292, 29. The statutory NSR provisions require NSR for any physical change that increases actual, annual emissions. Moreover, an hourly-rate test would fundamentally disconnect the "modification" definition from the substantive, statutory provisions governing NSR. Therefore, a physical change that increases actual, annual emissions must trigger NSR even if it does not increase the hourly emissions rate.

In each of the NSR enforcement cases that EPA brought in 1999-2000 against power companies, EPA found that the power plants performed modifications resulting in hundreds and even thousands of tons of increased emissions without obtaining NSR permits or installing pollution controls, thereby thwarting Congress' goal of triggering NSR when emissions increase.

In all of the NSR enforcement cases brought by EPA against coal fired utilities EPA made the following allegations:

> As a result of Defendants' continued operation of these plants following these unlawful modifications, and in the absence of appropriate controls, massive amounts of sulfur dioxide, nitrogen oxides, and particulate matter have been, and still are being, released into the atmosphere aggravating air pollution locally and far downwind from these plants. Defendants' violations, alone and in combination with similar violations at other coal-fired electric power plants, have been significant contributors to some of the most severe environmental problems facing the nation today.

See United States' Second Amended Complaint in *United States v. American Electric Power Service Corp.,* Case No. C2-99-1182 (S.D. Ohio)(same for actions against the Tennessee Valley Authority (TVA), Ohio Edison, Cinergy, Illinois Power, Southern Indiana Gas and Electric, and Duke Energy). In all of these cases, the defendant utilities argued that because they had not increased their maximum achievable hourly emissions, they had not triggered the NSR requirements. In response, EPA took the position that such an emissions test would effectively

render NSR a nullity for modifications because the provision would essentially never be triggered.

For example, in the *Cinergy* case, EPA argued that determining NSR applicability using a maximum achievable hourly emissions test would allow upgrades to go forward causing maximum emissions increase:

> [T]he PSD annual emissions test which considers both hourly rate and hours of operation is consistent with the purposes of PSD because a project that enables a source to increase its hours of operation could *significantly increase total emissions to the ambient air without effecting hourly rates.* The interpretation advanced by the utility industry simply ignores this possibility. Instead, *an hourly rate test would turn a blind eye to potentially massive quantities of increase annual emissions* by simply assuming that hours of operation following a change 'remain constant' so long as the hourly rate does not first change.

Memorandum in Support of United States' Motion for Partial Summary Judgment on Emissions Test (Dec. 17, 2004) in *United States v. Cinergy Corp.,* Civil Action No. IP99-1693 (S.D. Ind.) at 34-35 (emphasis added). The Seventh Circuit upheld that interpretation. *United States v. Cinergy Corp.*, 458 F.3d 705 (7th Cir. 2006).

The EPA OAR has failed to properly analyze whether its proposed NSR revisions will result in air quality degradation in the Northeast region, especially New York, from increased sulfur dioxide and nitrogen oxide emissions, despite evidence from the enforcement cases that such an adverse impact would occur if such a test were used. Further, EPA OAR has not released for public comment or responded to the EPA air enforcement office's memorandum that did analyze whether the "achievable" test would lead to unreviewed emission increases of sulfur dioxide and nitrogen oxide, which contribute to elevated levels of ground level ozone and fine particulate matter.

EPA appears to approach the impact of its proposed revisions to NSR based on the assumption that as long as emissions decrease nationally, any local or regional emissions increases that occur as a result of modifications at a particular plant are not of any concern. EPA's Fact Sheet on the proposed rule states that the Clean Air Interstate Rule (CAIR) and other programs will lead to

significant further reductions in sulfur dioxide and nitrogen oxide emission from the power sector. However, this approach completely ignores the fact that NSR focuses on local and regional air quality. Even if power plant emissions of sulfur dioxide and nitrogen oxide are declining nationally, this means little to a state or a c citizen downwind of a power plant that takes advantage of the hourly emissions tests to modify its operations so that it can increase its utilization and boost actual emissions. EPA utterly fails to address the fact that the legal validity of CAIR is being challenged in the courts by the very same utilities that it is trying to assist with this regulatory change.

EPA's proposed NSR revisions to adopt maximum achievable and maximum achieved hourly emissions tests will allow physical increases in emissions of hundreds, if not thousands of tons of sulfur dioxide and nitrogen oxides and afford the emitting power plants "vistas of indefinite immunity" from the NSR requirement to install air pollution control technology. This rule change gives the owners an opportunity to game the system by doing major service life extension projects without a pre-modification NSR permit and avoid the requirement to retrofit air pollution reduction technology by keeping within an hourly rate, but operating for longer time periods and materially increasing the actual, annual amount of air pollution, acid deposition and mercury emitted.

If adopted, EPA's proposed revision will permit the rebuilding of deteriorating coal burning power plants now operating without scrubbers and increase the amount of a source's pollution by thousands of tons per year, as long as the changes do not alter the hourly rate of emissions. These hourly tests would frustrate the goals of the Clean Air Act because many fewer sources will trigger NSR and have to install pollution controls to reduce their emissions. This will lead to degraded air quality locally and regionally, and enable older, poorly controlled sources to continue to operate without installing state of the art controls.

EPA's October 2005 proposal held that PSD must contain hourly tests, like NSPS. However, the U.S. Supreme Court in *Duke Energy* struck this proposal down. It held that the definition of modification under the PSD regulations could not be taken to track that under the NSPS

regulations. In other words, because the NSPS regulations used the calculation of hourly emissions increases, and the PSD regulations used the calculation of annual emissions increases, one could not use the hourly emissions increases under PSD simply because it is the allowed method under NSPS. *Id.* The Court stated that while the 1980 PSD regulations may be no seamless narrative, they clearly do not define a "major modification" in terms of an increase in the "hourly emissions rate." *Id.* at 1434. When a rate is mentioned in the regulatory definitions, the rate is annual, not hourly. *Id.* This proposed rule completely ignores this ruling of the Supreme Court.

This proposed rule is nearly identical to the proposed rule that the Supreme Court invalidated in *Duke Energy*. In that case, one of the main questions was can a power plant undertake physical changes without complying with the PSD program that allows for an increase in its annual emissions rate as long as the hourly emissions rate does not increase. The Court held that it can not.

By proposing this supplemental rule that is nearly identical to the original October 2005 proposed rule, EPA is ignoring the decision of the Supreme Court in *Duke Energy* in which the Court clearly stated that the test for whether or not NSR applies in the PSD context is an annual emissions rate not an hourly rate.

The proposed rule states that Option 1 and Option 2 would simplify NSR applicability determinations by conforming NSR applicability determinations with NSPS applicability determinations. Again, this is exactly the issue that the Supreme Court resolved in the *Duke Energy* case. The Supreme Court held that the NSPS and PSD regulations differ and they cannot be read together to apply an hourly emissions test to PSD. Both Options proposed would do exactly what the Supreme Court ruled EPA cannot do.

This proposed rule fails to comply with the Clean Air Act (CAA), ignores the recent U.S. Supreme Court decision in *Environmental Defense, et al. v. Duke Energy, et al.,* 127 S. Ct. 1423 (2007), ignores the D.C. Circuit Court of Appeals decision in *New York, et al. v. EPA, et al.,* 443

F.3d 880 (D.C. Cir. 2006) (*NSR II*), and fails to promote the health, safety and welfare of the public and the environment.

This result is not consistent with the intent of Congress in enacting the Clean Air Act and subsequent amendments. See *WEPCo.,* 893 F.2d at 909. EPA's proposed changes to the NSR program construe the Clean Air Act in a manner which is directly at odds with the mandate to prevent increases in pollution, and will allow excessive and controllable amounts of pollutants to continue to be emitted by old and dirty power plants even if the plant is upgraded to extend its service life for decades. The failure to apply the proper measure of increased emissions under PSD review compelled by the terms of the Clean Air Act will result in substantial negative impacts on vital environmental and natural resources including the Adirondacks and the Catskills, the Chesapeake Bay and other wild lands and waters throughout the northeastern United States.

The Adirondacks, Catskills and the Chesapeake Bay are located downwind of numerous coal-burning power plants, whose emissions have damaged lakes and forests in their regions.[3] Coal-fired power plants emit high levels of sulfur dioxides and nitrogen oxides,[4] which are significant contributors to the formation of ozone, acid rain and acid deposition in the Adirondacks, Catskills and the Chesapeake Bay. Emissions of sulfur dioxides and nitrogen oxides react with other compounds in the air to form acids which reach earth through rain, snow, fog, or as dry particles.[5] In the Northeastern United States, numerous acid sensitive forest and freshwater

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3 Testimony of New York Attorney General Eliot Spitzer before the U.S. Environmental Protection Agency, March 31, 2003, *at* http://www.oag.state.ny.us/press/statements/usepa_cleanair_testimony.pdf.

4 Energy Information Administration, Office of Integrated Analysis and Forecasting, U.S. Department of Energy *Analysis of Strategies for Reducing Multiple Emissions from Power Plants: Sulfur Dioxide, Nitrogen Oxides, and Carbon Dioxide* 59-63 (December 2000), *available at* http://tonto.eia.doe.gov/FTPROOT/service/oiaf0005.pdf.***;*** *See also supra* pp _(discussing nitrogen oxide emissions).

5 EPA, *Health and Environmental Impacs of Nox*, *at* http://www.epa.gov/air/urbanair/nox/hlth.html; Charles T. Driscoll, et al, Acid Rain Revisited: Advances in scientific understanding since the passage of the 1970 and 1990 Clean Air Act Amendments, 4-5 Hubbard Brook Research Foundation, 2001, available at http://www.hubbardbrook.org/hbrf/publications/Acid_Rain_Revisited.pdf .

aquatic regions suffer from the ecological damage and health problems associated with acid rain and acid deposition.[6]

Forty-one percent of lakes in the Adirondacks and fifteen percent of lakes in New England suffer from chronic or episodic acidification.[7] Elevated levels of nitric and sulfuric acid significantly reduce the water's acid-neutralizing capacity. This acidic condition reduces species diversity and the abundance of aquatic life.[8]

As one example, acid deposition sets off a deadly chain of events for fish. High levels of acidic deposition and high soil acidity, to which power plant emissions contribute, occur in the forested regions in the Adirondacks and Catskills.[9] When combined with low soil calcium levels, acid deposition often fosters the release of aluminum from the soil to water, lakes, and streams.[10] Aluminum, in combination with high acidity levels in waters, is highly toxic. It disrupts the salt

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6 Charles T. Driscoll, et al, Acid Rain Revisited: Advances in scientific understanding since the passage of the 1970 and 1990 Clean Air Act Amendments, 9 Hubbard Brook Research Foundation, 2001, available at http://www.hubbardbrook.org/hbrf/publications/Acid_Rain_Revisited.pdf .

7 Charles T. Driscoll, *et al*, *Acid Rain Revisited: Advances in scientific understanding since the passage of the 1970 and 1990 Clean Air Act Amendments,* 13 Hubbard Brook Research Foundation, 2001, *available at* http://www.hubbardbrook.org/hbrf/publications/Acid_Rain_Revisited.pdf .

8 Charles T. Driscoll, *et al*, *Acid Rain Revisited: Advances in scientific understanding since the passage of the 1970 and 1990 Clean Air Act Amendments,* 13 Hubbard Brook Research Foundation, 2001, *available at* http://www.hubbardbrook.org/hbrf/publications/Acid_Rain_Revisited.pdf .

9 Charles T. Driscoll, *et al*, *Acid Rain Revisited: Advances in scientific understanding since the passage of the 1970 and 1990 Clean Air Act Amendments,* 15 Hubbard Brook Research Foundation, 2001, *available at* http://www.hubbardbrook.org/hbrf/publications/Acid_Rain_Revisited.pdf .

10 Driscoll, et. al., Acidic Deposition in the Northeastern United States: Sources and Inputs, Ecosystem Effects, and Management Strategies, BioScience, 186 March 2001, available at http://www.ingentaconnect.com/content/aibs/bio/2001/00000051/00000003/art00004;jsessionid=w8yzjh191elf.alice.

and water balance in fish, which can rupture blood cells and thicken fish blood, placing an enormous strain on fish hearts, and leading to deadly heart attacks.[11]

Acid deposition also has a deadly impact on other plant and animal life in the Northeast. Where acid deposition accelerates leaching of calcium from soil,[12] it adversely impacts plant life by depleting soils of this nutrient essential for plant growth. Elevated levels of acid in soil causes nutrients to leach out of trees, which can cause a nutrient imbalance, reducing the ability to respond to environmental stresses such as cold weather, drought or insect infestation.[13] In turn, animals that depend on plant life for food suffer as poor soil conditions adversely impact plant growth. At high elevations, red spruce trees, have suffered a serious decline as a result of acid deposition. Acidified soil causes unusually high mortality rates for red spruce forests.[14] Since the 1960's, more than half of the large canopy red spruce trees in the Adirondack and Green Mountains, and one-quarter of these trees in New Hampshires' White Mountains have died. Acid deposition decreases red spruce's tolerance of cold temperatures, leading to tree damage or death. This decline of red spruce trees is, in turn, detrimental to the unique and endangered species that rely on the tree for their habitat.[15]

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11 Charles T. Driscoll, *et al*, *Acid Rain Revisited: Advances in scientific understanding since the passage of the 1970 and 1990 Clean Air Act Amendments,* Hubbard Brook Research Foundation., 16 2001, *available at* http://www.hubbardbrook.org/hbrf/publications/Acid_Rain_Revisited.pdf.

12 Driscoll, et. al., Acidic Deposition in the Northeastern United States: Sources and Inputs, Ecosystem Effects, and Management Strategies, BioScience, 185 March 2001, available at http://www.ingentaconnect.com/content/aibs/bio/2001/00000051/00000003/art00004;jsessionid=w8yzjh191elf.alice.

13 Driscoll, et. al., Acidic Deposition in the Northeastern United States: Sources and Inputs, Ecosystem Effects, and Management Strategies, BioScience, 187-188 March 2001, available at http://www.ingentaconnect.com/content/aibs/bio/2001/00000051/00000003/art00004;jsessionid=w8yzjh191elf.alice. (discussing impact on sugar maple and red spruce trees).

14 Charles T. Driscoll, *et al*, *Acid Rain Revisited: Advances in scientific understanding since the passage of the 1970 and 1990 Clean Air Act Amendments.* Hubbard Brook Research Foundation, ***11***, 2001, *available at* http://www.hubbardbrook.org/hbrf/publications/Acid_Rain_Revisited.pdf.

15 Driscoll, et. al., *Acidic Deposition in the Northeastern United States: Sources and Inputs, Ecosystem Effects, and Management Strategies*, BioScience, 187 March 2001, *available*

Smog and decreased visibility are other problems exacerbated by emissions from coal-fired power plants. Ground level ozone, or smog, is formed when nitrogen oxides and volatile organic compounds react in the presence of sunlight.[16] This smog decreases visibility for hikers and others recreating in the region. In the Northeast mountains, on the haziest days, atmospheric sulfates contribute an estimated 70 percent of the particulate matter that impairs visibility.[17] In addition, ozone exposure is detrimental to some hiker's health. In one study, with prolonged outdoor exercise, adult hikers in New Hampshire who were exposed to low-levels of particulate matter and ozone were likely to experience significant effects on pulmonary function.[18] EPA identifies detrimental effects as including coughing, shortness of breath, and pain with inhalation, as symptoms of ozone exposure.[19]

Controlling pollution from power plants will reap important environmental benefits in the Adirondacks, Catskills and throughout the Northeast. Reducing power plants emissions will help reduce the acidification of lakes and rivers that is so harmful to plant and animal life in the Adirondacks and Catskills. Reducing emissions of pollutants will also improve visibility and human health by decreasing low level ozone.

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at http://www.ingentaconnect.com/content/aibs/bio/2001/00000051/00000003/art00004;jsessionid=w8yzjh191elf.alice.

16 EPA, *Health and Environmental Impacts of NOx*, *at* http://www.epa.gov/air/urbanair/nox/hlth.html; *See also* EPA, *Ground-level Ozone: What is it? Where does it come from?* (March 2, 2006) *at* http://www.epa.gov/air/urbanair/ozone/what.html.

17 William C. Malm, Cooperative Institute for Research in the Atmosphere, *Introduction to Visibility* (Colorado State University April 2000), 33 *available at* http://vista.cira.colostate.edu/improve/Education/intro_to_visibility.pdf, (last visited 7/ /2006).

18 S.A. Korrick, *et al.*, *Effects of Ozone and Other Pollutants on the Pulmonary Function of Adult Hikers.* 106 Environmental Health Perspectives, No. 2 (February 1998), 1-2 *available at* http://www.ehponline.org/docs/1998/106p93-99korrick/korrick-full.html (last visited 7/12/ 2006).

19 EPA, *Health and Environmental Impacts of Ground-level Ozone, at* http://www.epa.gov/air/urbanair/ozone/hlth.html. (last visited 7/12/2006).

Air pollution, especially emissions from power plants, has substantial negative impacts on the health of the Chesapeake Bay. Numerous aging and uncontrolled power plants operate within the Bay's airshed. The Bay suffers from nutrient overload, approximately one third of the nitrogen that enters the Chesapeake Bay comes from air pollution, and coal-fired power plants are the largest source of this air pollution. Excess nutrients cause algal blooms that deplete oxygen in the Bay, damaging critical resources. In 2005, the amount of water without oxygen in certain areas of the Chesapeake Bay was among the worst on record. More than three quarters of the Bay failed to meet dissolved oxygen restoration goals that summer. Thus, control of emissions from power plants, including those that would be exempted under this proposed rule, is of particular significance to CBF's efforts to save the Bay. The proposed rule would cause direct harm to the Chesapeake Bay. Reducing emissions from power plants will improve the water quality of the Chesapeake Bay.

The environmental implications of EPA's proposed NSR revisions are considerable. The number of operating power plants in this country between 30 and 50 years old is as high as 600. These plants "are up to ten times dirtier than new power plants built today."[20] One government study analyzing the emission reductions and price implications of NSR enforcement actions by the Justice Department and the states demonstrated that broadening these actions to address all non-NSR compliant electrical generating plants would potentially decrease nitrogen oxide emissions by 65 percent by 2020 and sulfur dioxide by 84 percent by 2020, as compared to 2000 emission levels.[21]

EPA's proposed changes to the NSR program will allow dirty and aging power plants to make major renovations that prolong and increase their service lives and hours of operation, increasing the actual amount of emissions of harmful pollutants, and evading the NSR requirement to install modern pollution control devices that are required for modified power plants. This directly

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20 Yekaterina Korastash, *EPA's New Regulatory Policy: Two Steps Back*, 5 N.C.J.L. & Tech. 295 (Spring 2004); *see also* www.sierraclub.org/cleanair/factsheets/power.asp.

21 Energy Information Administration, Office of Integrated Analysis and Forecasting, U.S. Department of Energy *Analysis of Strategies for Reducing Multiple Emissions from Power Plants: Sulfur Dioxide, Nitrogen Oxides, and Carbon Dioxide* 59-63 (December 2000), *available at* http://tonto.eia.doe.gov/FTPROOT/service/oiaf0005.pdf.

contravenes the text, structure, and purpose of the CAA's NSR program. The net result of EPA's approach would increase, rather than *limit* the actual amount of air pollution emitted, which cannot be what Congress intended for the CAA. Aging power plants already emit more pollutants than those currently required to have pollution control equipment, and by requiring aging power plants to retrofit only when their hourly rate of pollution increases, they will be allowed to emit excessive amounts of pollutants for greater periods of time, yielding an uncontrovertable net increase in pollutants. By contrast, Congress' design anticipated that these dirty plants would either close, or when modified to extend their operating lives, be required to control, and reduce their emissions. Allowing such plants to escape statutory NSR obligations, will not facilitate protection of the air in "areas of special national or regional natural, recreational, scenic, or historic value," 42 U.S.C. § 7470, but rather will impede such protection.

For the reasons as explained above, we ask that EPA's proposed revisions to the NSR program be rejected.

Sincerely,

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