

Déjà Vu All Over Again: Failed Reforms from the George W. Bush Administration Make a Reappearance in Trump EPA's Approach to Stationary Source Regulation

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Under Administrator Scott Pruitt, and now acting Administrator Andrew Wheeler, President Trump's Environmental Protection Agency (EPA) has pursued an intensely deregulatory agenda, rolling back many of President Obama's most significant environmental achievements.¹ But hidden in these rollbacks is another concerning trend: a return to failed Clean Air Act reform efforts first attempted by the George W. Bush EPA, and in particular, a renewed focus on the New Source Review (NSR) program. Using a recent example from the proposed Clean Power Plan² replacement, this article illustrates the importance of looking beyond the big deregulatory headlines to find the seemingly minor reforms quietly hollowing out the Clean Air Act.

NSR is the bedrock of stationary source permitting in the United States. Adopted as part of the 1977 Clean Air Act amendments,³ NSR lays out the procedures for pre-construction environmental review of new and modified stationary sources of air pollution across the country. The NSR program is a key part of state implementation plans to achieve and maintain attainment with the public health-based National Ambient Air Quality Standards (NAAQS). By requiring pre-construction permits and imposing technology-based standards based on regional air quality, NSR has dual goals to improve the air in polluted regions and maintain clean air in relatively less polluted regions.

While the EPA has announced a few standalone "streamlining" proposals,⁴ its most insidious proposed change to NSR was announced as part of the administration's Clean Power Plan replacement: the Affordable Clean Energy (ACE) rule regulating greenhouse gas emissions from existing power plants. Because the ACE proposal solely relies on emission reductions achievable inside the fence line of affected coal-fired power plants, many of these plants will need to upgrade their equipment in order to achieve the necessary emission

reductions. As explained in more detail below, such modifications at major sources would normally trigger NSR, thereby requiring environmental review and the installation of air pollution control technology. But instead, the Trump administration is proposing to change how NSR is triggered in order to effectively exempt these sources from NSR.

This article begins with a refresher on the Clean Air Act, then explains why the Trump administration's seemingly minor NSR applicability proposal could have major implications on stationary source permitting, and concludes with a preview of the legal arguments likely to be raised once the proposal is finalized.⁵

I. WHAT IS NEW SOURCE REVIEW?

NSR is the pre-construction review permitting program for criteria air pollution from large stationary sources like power plants and petroleum refineries.⁶ New major sources⁷ of air pollution and existing major sources making modifications⁸ are required to undergo environmental review from the relevant regulatory agency before starting construction.⁹ In California, this duty falls to the local air pollution control districts and air quality management districts, who have delegated authority from the state Air Resource Board over stationary sources of air pollution.¹⁰

The local districts evaluate the pollution expected to be generated by the new and modified sources and determine appropriate permit conditions designed to comply with local, state, and federal laws and regulations. Importantly, NSR requires the installation of state-of-the-art air pollution controls to mitigate potential increases in air pollution.

The degree of control required depends on which pollutants are being emitted and whether the area in which the source is located is in attainment with the federal NAAQS for the pollutant(s) being emitted. If the region is not in attainment for the pollutant being emitted, NSR requires installation of control technology meeting the Lowest Achievable Emission Rate (LAER). If the region is in attainment, sources are required

to install the less stringent Best Available Control Technology (BACT).¹¹ This “attainment NSR” is called the “Prevention of Significant Deterioration” (PSD) program, as it is designed to prevent backsliding in regions already in NAAQS attainment. While the programs have different control requirements, the applicability criteria is the same for both. For purposes of this article, discussion of NSR applicability refers to both attainment and nonattainment NSR.

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 or which results in the emission of any air pollutant not previously emitted.”¹² In its NSR implementing regulations, EPA has determined that NSR is triggered for a modification resulting in a “significant emissions increase.”¹³ Emission increases are measured on a cumulative annual basis by comparing the projected actual emissions after the modification (PAE, the maximum annual emission rate in tons per year projected in the first five years of operation¹⁴) with the baseline actual emissions (BAE, the average annual emission rate in tons per year actually emitted during any consecutive 24-month period in the prior 5 or 10 years¹⁵). An emission increase is “significant” if it equals or exceeds the listed annual rate in tons per year for the given pollutant.¹⁶

II. WHAT IS THE TRUMP ADMINISTRATION PROPOSING?

Now, the EPA is proposing to change its interpretation of when a power plant “increases” emissions sufficiently to count as a “modification” triggering NSR. Specifically, the EPA is proposing to allow states to look at increases in the hourly rate as the trigger for NSR, as a preliminary step before looking at overall increases in cumulative, annual pollution.¹⁷ If a source’s hourly emission rate is not projected to increase as a result of the proposed modification, NSR would not be triggered. In other words, a physical change that does not increase *both* the hourly and cumulative annual emissions would not be a “modification” under NSR. This proposal would only apply to existing power plant electricity generating units (“EGUs”)¹⁸ covered by the ACE rule, but would not be limited to projects undertaken to comply with the ACE rule—so any project an existing EGU undertakes in the future would be subject to this new NSR trigger.¹⁹

As noted in the introduction, this is not the first time the EPA has tried to propose this idea. Under the George W. Bush administration, the agency proposed a very similar change in 2007 to adjust the NSR trigger for existing EGUs to an hourly rate.²⁰ A final rule was never issued, as the proposal came at the tail end of

the Bush administration’s NSR reform efforts and was not finalized before Obama took office.²¹

Interestingly, the 2007 reform proposal was developed at the same time the federal government was making the exact opposite argument before the U.S. Supreme Court. Between 1988 and 2000, Duke Energy repaired or replaced 29 boilers at 8 coal-fired power plants in North Carolina, extending the useful life of decades-old equipment first installed between 1940 and 1975, and allowing the power plants to increase hours of operation.²² Duke Energy did not go through pre-construction environmental review before making these modifications, arguing the replacements did not increase the hourly emission rate and therefore were not modifications subject to NSR.²³ Under the Clinton administration, the United States filed an enforcement action against Duke Energy for its failure to apply for permits.²⁴ After the 2000 election, the Bush administration (along with environmental nonprofit intervenors) continued the litigation, eventually taking Duke Energy all the way to the Supreme Court. Justice Souter rejected Duke Energy’s arguments and found that EPA’s regulatory approach looking to cumulative, annual emissions rather than the hourly emission rate was perfectly reasonable under the Clean Air Act.²⁵ Just over a month later, the Bush EPA would issue its notice of proposed rulemaking to change its interpretation to match Duke Energy’s.²⁶ One common denominator between the 2007 reform efforts, Duke Energy, and the current reform proposal? Current Assistant Administrator for EPA’s Office of Air and Radiation Bill Wehrum,²⁷ a key player in the Bush EPA²⁸ and a former attorney for Duke Energy and other energy industry clients.²⁹

As briefly discussed in the introduction, the current reform proposal is integral to the ACE rule, which proposes that the “Best System of Emission Reduction” (BSER) to decrease greenhouse gas emissions from coal-fired power plants be limited to emission reductions that can be made inside the fence line of affected facilities.³⁰ In other words, the ACE rule takes a facility-by-facility approach to emission reductions, defining BSER in the context of specific facilities, rather than the Clean Power Plan’s sector-wide approach, which identified BSER options and allowed for the use of a combination of different BSER approaches to hit emission reduction targets. This shift is significant: the Obama administration’s grid-based approach recognized the interconnected nature of the electrical grid when evaluating how to reduce emissions, but the Trump administration has chosen to rely solely on heat rate improvements (HRI) at individual power plants to achieve emission reductions.³¹

In its proposal, the EPA admits that changes undertaken as a result of the ACE rule could result in

emission increases on an annual basis at individual plants that would normally trigger NSR.³² Nonpartisan thinktanks, as well as the Congressional Research Service, have also pointed to this potential for annual emission increases (called the “rebound effect”) whereby modified EGUs with increased efficiency become more attractive to the grid and are dispatched more frequently, leading to increased cumulative emissions even when hourly rates decrease.³³ Even though the existing cumulative NSR trigger would subject these kinds of changes to environmental review, the ACE rule would not consider these changes to be “modifications” subject to NSR.

The EPA projects that without an NSR exemption, affected EGUs will undertake less effective modifications designed to avoid triggering NSR and installing required air pollution controls.³⁴ It models this projection by assuming individual EGUs will achieve only a 2% HRI without NSR reform, but a 4.5% HRI with NSR reform.³⁵ Thus, the agency argues, NSR reform is needed to ensure that individual EGUs make improvements to their facilities that will reduce greenhouse gas emissions. But that argument ignores the reality of the Clean Air Act’s purpose, as explained in Part III below.

III. WHY DOES A CHANGE FROM ANNUAL TO HOURLY FOR NSR APPLICABILITY MATTER?

The proposed change is significant because it creates a regulatory loophole in the Clean Air Act: existing power plants can increase their actual cumulative emissions without undergoing pre-construction environmental review—so long as the hourly average remains the same. There is also some concern that this change in NSR applicability for EGUs could be broadened to apply to other types of major sources.³⁶ Changing to an hourly trigger for NSR may seem minor, but it has substantial permitting implications due to one of the biggest weaknesses of the NSR program (and the Clean Air Act more broadly): grandfathering.³⁷

Upon the Act’s adoption, Congress generally exempted existing stationary sources from meeting new standards under the Clean Air Act, assuming that pollution controls would gradually be phased in as old equipment was upgraded under a modification triggering NSR, or retired and replaced with new equipment subject to NSR. However, contrary to Congressional expectation, major sources like refineries and power plants have hung on to grandfathered equipment far beyond their expected lifetimes, indefinitely postponing upgrades and replacements in order to avoid being required to install expensive air pollution control equipment under NSR. The EPA has been trying to deal with this problem for decades, issuing an Enforcement Alert in 1999 that the agency believed regulated industries

were misleading regulators to get out of NSR.³⁸ Given that virtually all U.S. refiners would enter global consent decrees over the next decade accepting some applicability of “new source” standards to existing equipment as a result of Clean Air Act violations, this problem is more than hypothetical.³⁹

And grandfathering in coal-fired EGUs is a particularly egregious problem, as illustrated by the facts from the *Duke Energy* case discussed above. In the 1990s, Duke Energy upgraded more than 30 boilers, some of which had been installed more than 50 years prior—well before the Clean Air Act required any kind of air pollution controls.⁴⁰ These upgrades indisputably extended the useful life of this aging equipment and allowed the power plants to increase hours of operation, and all were undertaken without first undergoing pre-construction environmental review that would have required installation of air pollution controls.⁴¹

Because cost margins are so slim for today’s aging coal-fired power plants clinging to life in the face of cheaper and newer natural gas plants and renewables, the cost of installing new air pollution control equipment considered standard in every other industry can be cost-prohibitive for coal plants.⁴² As the New York Times discovered in a buried EPA report, 30% of coal-fired EGUs do not have any control equipment at all installed for SO_x emissions and 22% lack control for NO_x emissions,⁴³ even though largescale flue gas desulfurization and selective catalytic reduction to control SO_x and NO_x, respectively, have been standard since the 1970s.

EPA notes this disparity in its ACE proposal, citing a study that found that eighty percent of coal-fired EGUs “have emissions rates for NO_x and SO₂ at levels that exceed those typically required under NSR” and concluding that those EGUs “would have to install additional controls for NO_x or sulfur dioxide (SO₂) if these [energy efficiency] projects triggered the applicability of NSR.”⁴⁴

It is notable, therefore, that EPA does not model any potential benefits from decreased emissions of co-pollutants like NO_x and SO_x if affected facilities under the ACE rule were required to undergo NSR and install air pollution controls. Instead, EPA discusses NSR reform only in terms of compliance costs, taking at face value industry talking points without acknowledging that aging coal-fired EGUs have benefited for decades from their grandfathered status.⁴⁵

IV. WHAT ARE THE LIKELY LEGAL ARGUMENTS?

Since the final ACE rule has yet to be issued, it is too early to dive into the administrative record to analyze whether EPA has met its Administrative Procedure

Act burdens, but this section previews other legal questions raised by the NSR applicability change.

The primary legal questions are likely to be (1) whether the Clean Air Act's definition of modification as "any physical change. . . which increases the amount of any air pollutant" can reasonably be interpreted to mean only those physical changes that increase the hourly rate at which those pollutants are emitted, and (2) whether EPA's proposal contravenes Congressional intent by exempting one particular category of source from generally applicable provisions of the Clean Air Act. The answer to these questions will depend on whether a court sees this proposal as simply a new method of calculation, or as an impermissible carveout for coal-fired EGUs.

Courts generally defer to expert agencies' reasonable interpretations of ambiguous statutes under the doctrine set forth in *Chevron vs. NRDC*, a 1984 U.S. Supreme Court decision which coincidentally also assessed an EPA interpretation of the Clean Air Act's NSR provisions.⁴⁶ Basic *Chevron* doctrine sets up a two-step test: First, the court asks whether Congress spoke directly to the question at issue in the statute itself. If so, the plain meaning of the law governs. But if the statute is ambiguous, courts proceed to the second step, and will defer to an agency's permissible interpretation.⁴⁷ Arguments on either side of the NSR proposal will likely revolve around whether the Clean Air Act's definition of "modification" is ambiguous enough to encompass the EPA's new interpretation.

The Trump EPA is likely to argue that its new interpretation of the Clean Air Act to consider hourly rates when determining whether a "modification" results in an emission "increase" should be granted deference at *Chevron* Step 2 because the Clean Air Act's definition of "modification" is ambiguous as to what constitutes an emission "increase." Ironically, the best case for this argument may be the 2007 U.S. Supreme Court decision discussed above in which Duke Energy argued for an hourly NSR trigger. . . and lost.

But in that decision, the Supreme Court implicitly recognized that the Clean Air Act's definition of "modification" was ambiguous. Duke Energy had argued that because the Clean Air Act cross-referenced the definition of "modification" in PSD⁴⁸ with the definition in a different section of the Clean Air Act (the New Source Performance Standards or NSPS), "modification" had to be interpreted identically in both programs.⁴⁹ Because the EPA defined modification on the basis of hourly rate increases for NSPS, Duke Energy argued (and the Fourth Circuit found) the same interpretation must necessarily apply in the PSD context.⁵⁰ But the Supreme Court disagreed, noting that "the cross-reference alone

is certainly no unambiguous congressional code for eliminating the customary agency discretion to resolve questions about a statutory definition by looking to the surroundings of the defined term, where it occurs."⁵¹ Thus, "[a]bsent any iron rule to ignore the reasons for regulating PSD and NSPS 'modifications' differently, EPA's construction need do no more than fall within the limits of what is reasonable, as set by the Act's common definition."⁵² In other words, the Supreme Court recognized that the definition of "modification"⁵³ was ambiguous due to the Clean Air Act's cross-referencing, and the court accordingly deferred to EPA's reasonable interpretation. Using that rationale, the Trump administration is likely to argue that its new interpretation of "modification" is reasonable and merits *Chevron* deference.

In addition, the Trump EPA has some basis to argue that methods of calculating NSR emission increases merit *Chevron* deference because the Clean Air Act is "silent on how to calculate such 'increases' in emissions."⁵⁴ In a series of mid-2000s D.C. Circuit decisions, the court considered various NSR reforms proposed by the Bush EPA and upheld proposals it deemed to be related to calculation methodology at *Chevron* Step 2 based on ambiguity in the term "increases."⁵⁵ In *New York I*, the court deferred to the Bush EPA's proposal to use a ten-year lookback period in setting the pre-modification emissions baseline, finding that because "Congress did not specify how to calculate 'increases' in emissions, leaving EPA to fill in that gap while balancing the economic and environmental goals of the statute," the court would "defer to EPA's statutory interpretation under *Chevron* Step 2."⁵⁶ The Trump EPA may likewise argue its new interpretation to consider hourly emissions rather than cumulative, annual emissions is similarly a mere calculation methodology that merits deference to resolve ambiguity in the term "increase."

On the other hand, in dismissing Duke Energy's arguments that PSD required an hourly trigger, the Supreme Court noted the PSD regulations did not lend themselves easily to an interpretation that the trigger should be based on hourly rate increases.⁵⁷ In addition, challengers to the current NSR reform proposal can point to the same series of DC Circuit decisions discussed above, which also overturned a number of more substantive Bush NSR reform efforts at *Chevron* Step 1 to further support their arguments that "modification" is not ambiguous enough to include the current proposal.⁵⁸

Echoing arguments the Trump EPA is making again today, the Bush EPA sought to exempt certain classes of projects from NSR, including, *inter alia*, (1) projects at sources that had undergone NSR sometime in the past 10 years,⁵⁹ (2) "environmentally beneficial" pollution

control projects that substantially reduced emissions of some pollutants but increased emissions of others,⁶⁰ and (3) routine maintenance, repair, and replacement projects whose value was less than twenty percent of the replacement value of the equipment.⁶¹

The Bush EPA argued these types of projects should be exempted from NSR in order to “to remove a ‘regulatory disincentive that might otherwise prevent industry from undertaking pollution control and prevention measures,’” and because it would be “absurd” for Congress to discourage pollution control projects by “subjecting sources to NSR.”⁶² Likewise, the Trump EPA now argues its NSR revisions are necessary because the threat of NSR might have “unintended consequences” for energy efficiency projects since “the prospect of a protracted permitting process and a possible requirement to install pollution control equipment at the emissions unit can create a disincentive for sources to voluntarily make energy efficiency improvements.”⁶³

But the D.C. Circuit rejected the Bush EPA’s arguments, and in two separate decisions rejected all three of the NSR exemptions described above at *Chevron* Step 1. That is, the court did not even reach the issue of whether EPA’s interpretation of the Clean Air Act was reasonable because the court found that Congressional intent was clear—and Congress did *not* intend the industry carve-outs EPA was proposing.⁶⁴

In *New York I*, the court rejected EPA’s argument that it would be “absurd” for Congress to “discourage [pollution control projects] by subjecting them to NSR.”⁶⁵ Instead, the court noted there was “nothing inherently ‘absurd’” in requiring environmental review for projects that control one pollutant but might “increase collateral emissions.”⁶⁶ Indeed, the court found it was perfectly reasonable for Congress to acknowledge that “tradeoffs between pollutants are difficult to measure” and thus require that “any significant increase in emissions of any pollutant should be subject to NSR.”⁶⁷ The court concluded that absent “clear congressional delegation,” the “EPA lacks authority to create an exemption from NSR by administrative rule.”⁶⁸ Likewise, the court rejected the proposed exemption for equipment that had undergone NSR in the prior 10 years based on their status as a “Clean Unit” rather than their actual emissions, finding that the Clean Air Act “unambiguously defines ‘increases’ in terms of actual emissions.”⁶⁹

In *New York II*, the court evaluated the exemption for repair projects and found at *Chevron* Step 1 that Congress was unambiguous when it included in the Clean Air Act’s definition of modification “any physical change in, or change in the method of operation of, a stationary source which increases the amount of any

air pollutant.”⁷⁰ The court concluded that “[b]ecause Congress used the word ‘any,’ EPA must apply NSR whenever a source conducts an emission-increasing activity that fits within one of the ordinary meanings of ‘physical change.’”⁷¹ Notably, the court rebutted many of the same arguments EPA tries to make again today:

Given Congress’s goal in adopting the 1977 amendments of establishing a balance between economic and environmental interests, [citations], it is hardly “farfetched,” [citation], for Congress to have intended NSR to apply to any type of physical change that increases emissions. In this context, there is no reason the usual tools of statutory construction should not apply and hence no reason why “any” should not mean “any.” Indeed, EPA’s interpretation would produce a “strange,” if not an “indeterminate,” result: a law intended to limit increases in air pollution would allow sources operating below applicable emission limits to increase significantly the pollution they emit without government review.⁷²

In other words, Congress intended the Clean Air Act, and NSR in particular, to reduce emissions and protect public health—not to give regulated industries a break on compliance costs.⁷³

The Trump EPA calls the application of NSR to EGUs upgrading their equipment an “unintended consequence” that must be avoided through reform.⁷⁴ To the contrary, ensuring that “any physical change. . . which increases the amount of any air pollutant” undergoes environmental review and is controlled as necessary is the very goal of NSR. The installation of air pollution controls on decades-old equipment that may have no emission controls at all⁷⁵ is far from an “unintended consequence” of NSR—it’s the whole point. As the D.C. Circuit pointed out in *New York I*, there is nothing absurd about conducting environmental review anytime a project increases emissions.⁷⁶

V. CONCLUSION

While on its face an obscure change to an obscure section in the Code of Federal Regulations buried within the headline-grabbing Clean Power Plan rollback, the Trump EPA’s NSR applicability proposal would effectively exempt existing coal-fired power plants from undergoing environmental review going forward. The proposal appears flatly contrary to Congressional intent in the Clean Air Act, and could set a dangerous precedent for such an interpretation to be applied more broadly to other industrial sectors like refineries, who likewise have benefited from the use of grandfathered equipment lacking modern environmental controls.

This kind of proposal should serve as a cautionary warning for environmental advocates to watch out for a revival of similar Bush-era applicability and streamlining reforms proposed for NSR⁷⁷ and other parts of the Clean Air Act⁷⁸ intended to quietly hamstring the effectiveness of one of our most important environmental statutes.

ENDNOTES

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1. See, e.g., Press Release, EPA, U.S. EPA and DOT Propose Fuel Economy Standards for MY 2021-2026 Vehicles (Aug. 2, 2018), available at <https://www.epa.gov/newsreleases/us-epa-and-dot-propose-fuel-economy-standards-my-2021-2026-vehicles> (freezing the Obama-era fuel economy standards); Press Release, EPA, EPA Proposes Affordable Clean Energy (ACE) Rule (Aug. 21, 2018), available at <https://www.epa.gov/newsreleases/epa-proposes-affordable-clean-energy-ace-rule> (rolling back the Obama-era Clean Power Plan); Press Release, EPA, EPA Proposes Oil and Gas Targeted Improvements Package to Advance President Trump's Energy Dominance Agenda (Sept. 11, 2018), available at <https://www.epa.gov/newsreleases/epa-proposes-oil-and-gas-targeted-improvements-package-advance-president-trumps-energy> (proposing replacement for the Obama-era oil and gas NSPS); see also Coral Davenport, *Trump Administration Prepares a Major Weakening of Mercury Emissions Rules*, N.Y. TIMES (Sept. 30, 2018), available at <https://www.nytimes.com/2018/09/30/climate/epa-trump-mercury-rule.html> (previewing expected rollback of Obama-era Mercury and Air Toxics standards for coal-fired power plants).
 2. The Clean Power Plan was promulgated by the Obama EPA and proposed the United States' first-ever national standards to address greenhouse gas emissions from power plants. Implementation of the Clean Power Plan was ultimately stayed by the United States Supreme Court pending judicial review; the Trump EPA has now promulgated a rule intended to replace the Clean Power Plan entirely.
 3. An act to amend the Clean Air Act, and for other purposes, Pub. L. No. 95-95 (1977), available at <https://www.congress.gov/bill/95th-congress/house-bill/6161> ("Requires a State, as part of its implementation plan, to include a permit program as specified in the Act, and to institute a permit program for any major emitting facility to assure the achievement and maintenance of national ambient air quality standards. . . .").
 4. See, e.g., Press Release, EPA, EPA's New Source Review Actions in Review (May 16, 2018), available at <https://www.epa.gov/newsreleases/epas-new-source-review-actions-review>; Press Release, EPA, EPA Finalizes Another Action to Reform NSR and Improve Regulatory Certainty (Nov. 7, 2018), available at <https://www.epa.gov/newsreleases/epa-finalizes-another-action-reform-nsr-and-improve-regulatory-certainty>.
 5. Comments were due on the ACE rule by October 31, 2018, and the Trump administration's updated regulatory agenda from the Office of Management and Budget indicates EPA expects to finalize the rule in early 2019. See <https://www.reginfo.gov/public/do/eAgendaViewRule?pubId=201810&RIN=2060-AT67> (indicating March 2019 as the expected release date for the final rule).
 6. See *generally* EPA, Learn About New Source Review, available at <https://www.epa.gov/nsr/learn-about-new-source-review> (last visited November 18, 2018).
 7. 42 U.S.C. § 7479(1) ("The term 'major emitting facility' means any of the following stationary sources of air pollutants which emit, or have the potential to emit, one hundred tons per year or more of any air pollutant from the following types of stationary sources: [listed industrial categories]. Such term also includes any other source with the potential to emit two hundred and fifty tons per year or more of any air pollutant. This term shall not include new or modified facilities which are nonprofit health or education institutions which have been exempted by the State."); see also 40 C.F.R. § 51.165(a)(1)(iv)(A) ("Major stationary source means. . . [a]ny stationary source of air pollutants that emits, or has the potential to emit, 100 tons per year or more of any regulated NSR pollutant. . .").
 8. The Clean Air Act definition of modification in the NSR section incorporates by reference the definition in a different section of the Act, the New Source Performance Standards (NSPS). 42 U.S.C. § 7501(4). The NSPS definition for modification refers to "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 or which results in the emission of any air pollutant not previously emitted.” 42 U.S.C. § 7411(a)(4).

9. “Minor” sources (sources emitting less than statutorily defined thresholds for “major” sources) may be required to go through “minor NSR,” but for simplicity this article focuses on major NSR. See EPA, Minor NSR Basic Information, available at <https://www.epa.gov/nsr/minor-nsr-basic-information>.
10. CAL. HEALTH & SAFETY CODE § 39002 (“Local and regional authorities have the primary responsibility for control of air pollution from all sources other than vehicular sources.”). See also, e.g., SOUTH COAST AIR QUALITY MANAGEMENT DIST., New Source Review, available at <http://www.aqmd.gov/home/permits/new-source-review> (last visited Nov. 18, 2018).
11. 42 U.S.C. § 7475(a)(4).
12. 42 U.S.C. § 7411(a)(4). See note 8, *supra*.
13. 40 C.F.R. § 50.165(a)(1)(v)(A).
14. 40 C.F.R. § 50.165(a)(1)(xxviii).
15. 40 C.F.R. § 50.165(a)(1)(xxv). Electric utility steam generating units have a 5-year lookback period, while all other sources have a 10-year lookback period. 40 C.F.R. § 50.165(a)(1)(xxv)(A, B).
16. 40 C.F.R. § 50.165(a)(1)(x)(A) designates the following annual emission rates to be significant:
 - Carbon monoxide: 100 tons per year (tpy)
 - Nitrogen oxides: 40 tpy
 - Sulfur dioxide: 40 tpy
 - Ozone: 40 tpy of Volatile organic compounds or Nitrogen oxides
 - Lead: 0.6 tpy
 - PM10: 15 tpy
 - PM2.5: 10 tpy of direct PM2.5 emissions; 40 tpy of Sulfur dioxide emissions, 40 tpy of Nitrogen oxide emissions, or 40 tpy of VOC emissions, to the extent that any such pollutant is defined as a precursor for PM2.5 in paragraph (a)(1)(xxxvii) of this section.
17. Emission Guidelines for Greenhouse Gas Emissions From Existing Electric Utility Generating Units; Revisions to Emission Guideline Implementing Regulations; Revisions to New Source Review Program, 83 Fed. Reg. 44746, 44780 (Aug. 31,

2018) [hereinafter *ACE Proposal*], available at <https://www.gpo.gov/fdsys/pkg/FR-2018-08-31/pdf/2018-18755.pdf>; see also *id.* at 44798 (proposing to add new section 40 CFR § 51.167 laying out the new NSR calculation requirements adding a new preliminary step to calculate emission increases on an hourly basis: “For each regulated NSR pollutant for which you have hourly average CEMS or PEMS emissions data with corresponding fuel heat input data, compare the pre-change maximum actual hourly emissions rate in pounds per hour (lb/hr) to a projection of the post-change maximum actual hourly emissions rate in lb/hr. . .”).

18. As defined in 40 C.F.R. § 51.124(q).
19. *ACE Proposal*, 83 Fed. Reg. at 44781-2. EPA is soliciting comment on whether to restrict the rule further (such as confining the proposal to only modifications undertaken for ACE compliance), but as proposed it applies “to all EGUs,” “in all areas of the United States,” undertaking modifications involving “all regulated NSR pollutants.” *Id.* at 44781.
20. Supplemental Notice of Proposed Rulemaking for Prevention of Significant Deterioration and Nonattainment New Source Review: Emission Increases for Electric Generating Units, 72 Fed. Reg. 26202 (May 8, 2007), available at <https://www.regulations.gov/document?D=EPA-HQ-OAR-2005-0163-0196>. The 2007 proposal revived a prior 2005 proposed rule that had never been finalized. Prevention of Significant Deterioration and Nonattainment New Source Review and New Source Performance Standards: Emissions Test for Electric Generating Units, 70 Fed. Reg. 61081 (Oct. 20, 2005), available at <https://www.regulations.gov/document?D=EPA-HQ-OAR-2005-0163-0001>.
21. See Bruce Barcott, *Changing All the Rules*, N.Y. TIMES (April 4, 2004), available at <https://www.nytimes.com/2004/04/04/magazine/changing-all-the-rules.html> (describing numerous NSR reform efforts earlier in the Bush administration).
22. *Environmental Defense v. Duke Energy Corp.*, 549 U.S. 561, 570 (2007).
23. *Id.* at 571.
24. *Id.*
25. *Id.* at 576-82.
26. The opinion in *Duke Energy* was published April 2, 2007 and the Supplemental Notice of Proposed Rulemaking, *supra* note 20, was issued May 8, 2007.

27. See generally Eric Lipton, *As Trump Dismantles Clean Air Rules, an Industry Lawyer Delivers for Ex-Clients*, N.Y. TIMES (Aug. 19, 2018), available at <https://www.nytimes.com/2018/08/19/us/politics/epa-coal-emissions-standards-william-wehrum.html> (describing Wehrum's delivery of positive outcomes for former clients during his current stint at EPA).
28. Andrea Fischer, *EPA Official Resigns as Head of Emissions Program*, TRANSPORT TOPICS (June 8, 2007), available at <https://www.ttnews.com/articles/epa-official-resigns-head-emissions-program> (noting Wehrum's resignation from the Bush EPA in 2007 upon his failure to gain Senate confirmation for the assistant Administrator post and describing Wehrum's tenure at the agency from 2001 through 2007).
29. Rene Marsh, *Senator pressures EPA over official's industry ties, meetings*, CNN (Oct. 20, 2018), available at <https://www.cnn.com/2018/10/19/politics/senator-pressure-epa-over-officials-industry-ties-meetings/index.html> (noting potential ethical conflicts raised by Wehrum's contacts with former clients including Duke Energy).
30. See *ACE Proposal*, 83 Fed. Reg. at 44755.
31. See *id.* For further discussion distinguishing the two approaches, see, e.g., Cara Horowitz, *EPA to Propose Replacing Clean Power Plan with Something Much, Much Weaker*, LEGALPLANET (Aug. 20, 2018), available at <http://legal-planet.org/2018/08/20/epa-to-propose-replacing-clean-power-plan-with-something-much-much-weaker/>; Nat Logar, *The Affordable Clean Energy Rule Would Be Neither Affordable Nor Clean*, LEGALPLANET (Oct. 31, 2018), available at <http://legal-planet.org/2018/10/31/the-affordable-clean-energy-rule-would-be-neither-affordable-nor-clean/>.
32. *ACE Proposal*, 83 Fed. Reg. at 44781 ("While it is possible that some individual units may experience an increase in annual emissions due to increases in operation, it is very difficult to project with confidence at which of the units this would actually occur."); *id.* at 44775 (noting that as an "EGU increases its generation, to the extent the EGU operates beyond its historical levels by a meaningful amount, it could result in an increase in emissions on an annual basis, as calculated pursuant to the current NSR regulations").
33. See EPA'S AFFORDABLE CLEAN ENERGY PROPOSAL, CRS REPORT R45393 (VERSION 2), CONGRESSIONAL RESEARCH SERVICE (Nov. 2 2018) at pp. 11, 22, available at <https://crsreports.congress.gov/product/pdf/R/R45393>; see also, e.g., Kathryn Cleary & Karen L. Palmer, *A Giant Rebound? How the Coupling of ACE and Federal Energy Policies to Protect Coal Could Drive Up CO2 Emissions*, RESOURCES FOR THE FUTURE (Sept. 18, 2018), available at <http://www.rff.org/blog/2018/giant-rebound-how-coupling-ace-and-federal-energy-policies-protect-coal-could-drive-co2>.
34. *ACE Proposal*, 83 Fed. Reg. at 44783.
35. *Id.* ("The first illustrative scenario, 2 Percent HRI at \$50/kW, represents a policy case that reflects modest improvements in HRI absent any revisions to NSR requirements. For many years, industry has indicated to the Agency that many sources have not implemented certain HRI projects because the burdensome costs of NSR cause such projects to not be viable. Thus, absent NSR reform, HRI at affected units might be expected to be modest. . . . The second illustrative scenario, 4.5 Percent HRI at \$50/kW, represents a policy case that includes benefits from the proposed revisions to NSR, with the HRI modeled at a low cost. As mentioned earlier, the Agency is proposing revisions to the NSR program that will provide owners and operators of existing EGUs greater ability to make efficiency improvements without triggering the provisions of NSR. This scenario is informative in that it represents the ability of all coal-fired EGUs to obtain greater improvements in heat rate because of NSR reform at the \$50/kW cost identified earlier. EPA believes this higher heat rate improvement potential is possible because without NSR a greater number of units may have the opportunity to make cost effective heat rate improvements such as steam turbine upgrades that have the potential to offer greater heat rate improvement opportunities.").
36. See, e.g., Maxine Joselow, *Manufacturers ask EPA to give them the coal treatment*, E&E NEWS GREENWIRE (Aug. 30, 2018), available at <https://www.eenews.net/greenwire/2018/08/30/stories/1060095483> (reporting the National Association of Manufacturers was lobbying for the same proposal to be applied to the manufacturing sector); AMERICAN PETROLEUM INSTITUTE, Comments on [the ACE rule] (Oct. 31, 2018), available at <https://www.regulations.gov/document?D=EPA-HQ-OAR-2017-0355-23810> ("API recommends that EPA expand the proposed NSR changes to include all industry sectors. . . . API supports the addition of an hourly emissions test within the existing major NSR applicability framework. . . . [B]ecause the impediments caused by the existing NSR permitting framework are widespread across multiple industries, EPA's proposal

to limit its NSR reform effort to EGUs would unnecessarily hamstring the environmental and energy improvements that could be realized through this important reform effort. . . . API believes that finalizing an hourly emissions test for EGUs, as well as petroleum refineries and other industry sectors, would provide a more supportable and legally defensible final rule. . . . EPA's rationale for distinguishing EGUs from petroleum refineries or other industrial sectors is altogether absent. Like EGUs, petroleum refineries are heavily regulated and driven by economic need to operate at maximum operational efficiency. API therefore recommends that EPA expand the proposed NSR "hourly test" to include all industry sectors. API is hopeful that EPA share our view that this proposed change should be just one part of a larger and more comprehensive effort to minimize or eliminate major NSR's disincentives for all industrial sources undertaking energy-efficiency projects.").

Bill Wehrum told Bloomberg Environment in December that EPA does not intend to extend the ACE rule's NSR applicability proposal to other sectors "for now," but added that "doesn't mean forever"—indicating there is some possibility of extension in the future. Amena H. Saiyid, *Air Permit Flexibility Not Going Beyond Power Sector: EPA's Wehrum*, BLOOMBERG LAW NEWS: ENVIRONMENT & ENERGY (Dec. 10, 2018), available at <https://news.bloombergenvironment.com/environment-and-energy/air-permit-flexibility-not-going-beyond-power-sector-epas-wehrum>.

37. See generally Victor B. Flatt & Kim Diana Connolly, 'Grandfathered' Air Pollution Sources and Pollution Control: New Source Review Under the Clean Air Act, CENTER FOR PROGRESSIVE REFORM (March 2005), available at http://www.progressivereform.org/articles/NSR_504.pdf.
38. Compliance with Permitting Critical to Clean Air Act Goals: EPA Concerned About Noncompliance with New Source Review Requirements, EPA, Enforcement Alert 300-N-99-002 (Jan. 1999), available at <https://www.epa.gov/sites/production/files/documents/newsources.pdf>.
39. Petroleum Refinery National Case Results, EPA, available at <https://www.epa.gov/enforcement/petroleum-refinery-national-case-results> (last visited Nov. 18, 2018) (listing 37 settlement agreements covering 112 refineries and 95 percent of U.S. refining capacity).
40. *Duke Energy*, 549 U.S. at 570.
41. *Id.* at 570-71.

42. See, e.g., Gavin Bade, *EPA's new ACE rule is a coal lifeline 'disguised as a GHG regulation,' critics say*, UTILITYDIVE (Aug. 22, 2018), available at <https://www.utilitydive.com/news/epas-new-ace-rule-is-a-coal-lifeline-disguised-as-a-ghg-regulation-crit/530696/>.
43. Eric Lipton, *E.P.A. Rule Change Could Let Dirtiest Coal Plants Keep Running (and Stay Dirty)*, N.Y. TIMES (Aug. 24, 2018), available at <https://www.nytimes.com/2018/08/24/climate/epa-coal-power-scrubbers.html>; see also Coal Unit Characteristics 2017 Summary, EPA, available at https://www.epa.gov/sites/production/files/2018-02/documents/coalunitcharacteristics2017_summary.pdf (last visited November 18, 2018).
44. *ACE Proposal*, 83 Fed. Reg. at 44775-6 (citing Sarah K. Adair et al., *New Source Review and coal plant efficiency gains: How new and forthcoming air regulations affect outcomes*, 70 ENERGY POL'Y 183-192 (July 2014), available at <https://www.science-direct.com/science/article/pii/S0301421514002031>).
45. See, e.g., FACT SHEET: Proposed ACE Rule—Permitting Improvements Under New Source Review Program, EPA, available at https://www.epa.gov/sites/production/files/2018-08/documents/ace_nsr.pdf (last visited Nov. 18, 2018) ("Were such projects found to trigger major NSR permitting, the consequences would include an increase in the sources' compliance costs and time for project implementation, enormous new permitting burdens on state permitting authorities, and increased costs to consumers. Existing plants might therefore forego investing in efficiency improvement projects, rather than risk triggering NSR by undertaking such projects. Worst case, if compelled to undertake efficiency improvement projects in order to comply with state-developed standards of performance, some existing facilities might choose to shut down altogether, in advance of the end of their expected useful life.").
46. *Chevron, U.S.A., Inc. v. Nat. Res. Defense Council, Inc.*, 467 U.S. 837 (1984).
47. *Chevron*, 467 U.S. 837, 842-3 (1984).
48. While not at issue in *Duke Energy*, the same is true for nonattainment NSR, which also cross-references the NSPS definition of modification in 42 U.S.C. § 7411. Compare 42 U.S.C. § 7479(2)(C) (cross-referencing to the NSPS for purposes of PSD: "the modification (**as defined in section 7411(a) of this title**) of any source or facility.") (emphasis added) with 42 U.S.C. § 7501(4) (defining modification for purposes of nonattainment NSR as "the same as

the term ‘modification’ **as used in section 7411(a) (4) of this title.**”)(emphasis added).

49. *Duke Energy*, 549 U.S. at 571.
50. *Id.* at 572-3.
51. *Id.* at 576. See also *id.* at 574 (noting that “[m]ost words have different shades of meaning and consequently may be variously construed, not only when they occur in different statutes, but when used more than once in the same statute or even in the same section.”).
52. *Duke Energy*, 549 U.S. at 576.
53. And, accordingly, nonattainment NSR—see note 48, *supra*.
54. *New York v. EPA*, 413 F.3d 3, 22 (2005) (“*New York I*”)
55. See *id.* at 22-23.
56. *Id.* at 27.
57. See, e.g., *Duke Energy*, 549 U.S. at 577-8:

True, the 1980 PSD regulations may be no seamless narrative, but they clearly do not define a “major modification” in terms of an increase in the “hourly emissions rate.” On its face, the definition in the PSD regulations specifies no rate at all, hourly or annual, merely requiring a physical or operational change “that would result in a significant net emissions increase of any” regulated pollutant. 40 CFR § 51.166(b)(2)(i). But even when a rate is mentioned, as in the regulatory definitions of the two terms, “significant” and “net emissions increase,” the rate is annual, not hourly. Each of the thresholds that quantify “significant” is described in “tons per year,” § 51.166(b)(23)(i), and a “net emissions increase” is an “increase in actual emissions” measured against an “average” prior emissions rate of so many “tons per year,” §§ 51.166(b)(3)(i) and (21)(ii). And what is further at odds with the idea that hourly rate is relevant is the mandate that “[a]ctual emissions shall be calculated using the unit’s actual operating hours,” § 51.166(b)(21)(ii), since “actual emissions” must be measured in a manner that looks to the number of hours the unit is or probably will be actually

running. What these provisions are getting at is a measure of actual operations averaged over time, and **the regulatory language simply cannot be squared with a regime under which “hourly rate of emissions,”** 411 F.3d, at 550 (emphasis deleted), **is dispositive.**

(emphasis added). This discussion, however, focuses on EPA’s own implementing regulations (which the EPA can simply update to match its new interpretation) rather than the text of the Clean Air Act, so it is of limited precedential value when considering Congressional intent in the language of the Clean Air Act itself.

58. See generally *New York I*, 413 F.3d 3; *New York v. EPA*, 443 F.3d 880 (2006) (“*New York II*”).
59. *New York I*, 413 F.3d at 38.
60. *New York I*, 413 F.3d at 41.
61. *New York II*, 443 F.3d at 83.
62. *New York I*, 413 F.3d at 40, 41.
63. *ACE Proposal*, 83 Fed. Reg. at 44776.
64. *New York I*, 413 F.3d at 40, 41; *New York II*, 443 F.3d at 889-90.
65. *New York I*, 413 F.3d at 41.
66. *Id.*
67. *Id.*
68. *Id.*
69. *Id.* at 38-40.
70. *New York II*, 443 F.3d at 885-90.
71. *Id.* at 885.
72. *Id.* at 886.
73. This is, perhaps, why EPA does not provide a detailed legal basis for its proposal on this point but instead attempts to crowdsource legal research by asking whether there have “been court decisions since *New York I* and *New York II* that can be read to afford EPA more flexibility with respect to its reading of the definition of ‘modification’ in the context of the NSR program?” *ACE Proposal*, 83 Fed. Reg. at 44782. Spoiler alert: no.
74. *ACE Proposal*, 83 Fed. Reg. at 44776.

75. See discussion of *Duke Energy* in Part III, *supra*. See also Coal Unit Characteristics 2017 Summary, EPA, available at https://www.epa.gov/sites/production/files/2018-02/documents/coalunitcharacteristics2017_summary.pdf (last visited November 18, 2018).
76. *New York I*, 413 F.3d at 41 (noting there is “nothing inherently ‘absurd’” in requiring environmental review for projects that control one pollutant but might “increase collateral emissions”).
77. See, e.g., Sean Reilly, *EPA restores Bush-era permit interpretation*, E&E NEWS GREENWIRE (Nov. 7, 2018), available at <https://www.eenews.net/greenwire/2018/11/07/stories/1060105453> (reporting on the Trump EPA’s interest in reviving a Bush-era NSR reform allowing major sources to avoid environmental review by staggering projects with emission increases just below relevant NSR thresholds instead of requiring project aggregation for purposes of NSR applicability as was the practice under the Obama EPA).
78. See, e.g., Press Release, EPA, Reducing Regulatory Burdens: EPA withdraws “once in always in” policy for major sources under Clean Air Act (Jan. 25, 2018), available at <https://www.epa.gov/newsreleases/reducing-regulatory-burdens-epa-withdraws-once-always-policy-major-sources-under-clean>; Meredith Hankins, *Trump Administration’s Quiet Policy Change Could More Than Double Hazardous Air Pollution in California*, LEGALPLANET (Oct. 9, 2018), available at <http://legal-planet.org/2018/10/09/trump-administrations-quiet-policy-change-could-more-than-double-toxic-air-pollution-in-california/> (analyzing change mimicking a failed reform effort from the Bush EPA, and adopted in a quiet January 2018 memorandum, which could effectively double toxic emissions in California).