Reforming New Source Review

What Project Emissions Accounting Really Means, and Why It Should Survive

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In the world of the Clean Air Act (CAA), few topics elicit more controversy than new source review (NSR). Okay, perhaps "climate change" actually takes top billing, but NSR is probably next in line. After all, NSR was the first program the U.S. Environmental Protection Agency (EPA) used to regulate greenhouse gases from "stationary sources," those power plants and industrial facilities now responsible for just under half of the greenhouse gas emissions in the United States. NSR generally refers to both the Prevention of Significant Deterioration (PSD) program and the nonattainment NSR program because the applicability provisions of both are similar—both require facilities to consider installing new emission controls when making other major modifications.

A variety of NSR reforms have been promulgated over the years, with several more proposed by the Trump administration. The round of reforms currently underway, first initiated by EPA Assistant Administrator Wehrum and now in the hands of EPA Assistant Administrator Idsal, is more narrowly targeted than the last comprehensive overhaul in 2002 under President George W. Bush.

One of the targets of the current set of NSR reform measures is Project Emissions Accounting (PEA), which clarifies how to determine whether a project at a stationary source that both increases and decreases emissions will trigger the requirement for an NSR permit. At a high level, EPA's PEA policy can be stated quite simply: Both increases and decreases count. But that simple description belies many complex implications.

The complexity underlying PEA is more than one article can unravel fully, and applying it to specific projects will, of course, require a case-specific review. Nevertheless, this article is intended to explain as plainly as possible when, and how, PEA could make a difference in determining whether real-world projects trigger NSR permitting. It also explores whether PEA is legal, based on the history and evolution of the policy and the legal authority for it, while attempting to dispel a few myths along the way.

The bottom line is that PEA will be relevant for only a small number of projects, but where it applies, it could be outcome-determinative. Contrary to critics' claims, the policy is likely to encourage greater environmental protection, not greater emissions. Although it will be challenged by those that oppose any type of NSR reform, relevant precedent suggests it is likely to survive the inevitable attack.

When Does PEA Apply?

In addition to governing the construction of "new sources," the NSR program requires existing stationary sources to obtain a permit before performing a "major modification." A project only constitutes a "major modification" if it will result in an "increase" in emissions of a regulated air pollutant. The rules and guidance that govern whether a project will cause an emissions increase are complex. At a high level, sources must first compare pre- and post-project emissions of each relevant pollutant to see if the individual project under review will cause any to increase (EPA calls this Step 1). If so, then the source may also check to see whether the calculations would still indicate an increase even if all of the projects conducted over the preceding five years are considered together (EPA calls this "Step 2" or "contemporaneous netting").

Under EPA's current rules, a project constitutes a "major modification" if both the Step 1 and Step 2 calculations indicate that the emissions of any pollutant will increase by a "significant" amount—i.e., above certain thresholds expressed in tons of emissions per year. "Major modifications" require NSR permits that are remarkably onerous. Even under the best circumstances, NSR permits can take more than a year to obtain, and the cost of complying with the requirements in those permits can exceed the cost of the projects that triggered them.

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For most projects, determining whether an individual project will cause an emissions increase (Step 1) requires only a single calculation for each relevant pollutant because most projects only affect a single emission point or stack. Think of a facility with only one stack that plans to install a new component that will cause the facility to burn more fuel. Determining whether that project will significantly increase emissions requires comparing a baseline of emissions from before the project to a projection of future emissions after the project. The difference will be either positive or negative, indicating an emissions increase or decrease, for each air pollutant.

Notably, even if a pollution control device is installed as part of the same project, there will still be only one calculation comparing a baseline to a future projection. The result of that comparison will still be either positive or negative for each pollutant, not both.

In contrast, some projects can affect more than one emission unit or stack. Think of an expansion project at a manufacturing facility that involves installing new components for both the production line and the boiler providing steam and power to the process, each with a separate stack. In that case, two sets of calculations are needed—one to compare baseline and future emissions for the production line and one to compare baseline and future emissions for the boiler.

Both calculations could result in an increase, which would be typical for a project designed to expand production capacity. However, under some circumstances, one calculation could result in an increase while the other results in a decrease. For example, if the boiler is converted from coal to gas as part of the project, the emissions from the boiler may fall even as emissions from the process line rise. Because the project affects two emission units, it can cause both an increase and a decrease at the same time, but only because it affects those two emission units in different ways.

That is where PEA comes into play—for projects affecting more than one emission point in different ways. EPA first announced the policy in a March 2018 guidance memorandum, EPA Letter from E. Scott Pruitt, to Regional Admins., Project Emissions Accounting Under the New Source Review Preconstruction Permitting Program (Mar. 13, 2018), and then proposed to codify it in August 2019 via clarifying revisions to the NSR rule text, even though EPA notes that the current text already provides sufficient support for the policy. Prevention of Significant Deterioration (PSD) and Nonattainment New Source Review (NNSR): Project Emissions Accounting, Proposed Rule, 84 Fed. Reg. 39,244 (Aug. 9, 2019). EPA has not yet finalized the proposed revisions to the rule, but promulgation could come any day.

PEA ensures that NSR permitting only applies to a project affecting more than one unit if the increases it causes will outweigh the decreases it causes by a "significant" amount. Accordingly, PEA is irrelevant to the single-stack example above; it is only relevant in situations akin to the second example, and only when both an increase and a decrease are expected from at least two different emission units. Because the vast majority of projects only affect a single unit or affect all units in the same way, the use of PEA may be somewhat limited.

How Does PEA Affect NSR Permitting?

Even more important than determining *when* PEA may be relevant is determining *how* it might affect the analysis of the projects to which it may apply. Critics of the policy have complained that the NSR rules already allow sources to use emission decreases to offset increases through "contemporaneous netting," and that PEA is just a shortcut for doing the same thing, but without certain requirements that EPA built into its rules on netting. That argument raises an important question: How does PEA differ from "contemporaneous netting"?

Unlike PEA, which focuses only on a single project (albeit one that affects more than one emission unit), "contemporaneous netting" allows sources to consider the sum total effect from both the project under review and all *other* projects across the entire source over the past five years. It also comes with three strings attached. First, projects that reduce emissions only create contemporaneous netting "credits" to the extent the decreases are made "enforceable" via new permit limits and conditions. Second, EPA has claimed in guidance that netting credits must be calculated using worst-case estimates of a source's "potential to emit" as the post-project emissions level, not a more realistic assessment of "projected actual emissions." EPA Letter from Cheryl L. Newton, Region 5, to Keith Baugues, Ind. Dep't of Envtl. Mgmt., at 5 (Apr. 4, 2011). Third, in order to count any decreases from another project, the source must count *all* decreases *and* increases from all other projects performed in the past five years.

In essence, the contemporaneous netting rules require sources to pretend as if all projects conducted over the five years preceding a new project were all together, in theory, one massive five-year-long project. Moreover, the only decreases that count are ones for which the source has accepted new permit limits, and any projections of actual decreases in emissions must be ignored, no matter how reliable and verifiable those projections may be. These constraints severely complicate and limit the utility of contemporaneous netting. They force sources to take a highly unrealistic view of past projects and revise their permits to accept new conditions—counterintuitively requiring permitting to avoid permitting.

EPA's PEA policy confirms these constraints are unnecessary when evaluating emissions increases and decreases that are associated with a single, individual project. It allows source owners to take a more realistic view of the effect on emissions from each individual project, and it avoids the need to count all other recent projects in every permitting evaluation. So, while the number of projects that might benefit from PEA may be limited, the policy could change the outcome of the permitting analysis whenever it applies.

Is PEA Legal?

Of course, any new policy is only meaningful if it is able to survive legal review. As with past NSR reforms, EPA's PEA policy will be challenged in the U.S. Court of Appeals for the D.C. Circuit, where all challenges to nationally applicable air regulations must go. Over the years, challenges to any form of NSR reform have become a matter of course, and many have been successful. For instance, while many of EPA's 2002 reforms survived

the challenges to those rules, the D.C. Circuit vacated two provisions and remanded a third. *New York v. EPA*, 413 F.3d 3 (2005) (vacating the "clean unit" and "pollution control project" provisions, and remanding for clarification the "reasonable possibility" provision).

The debate over how to count changes in emissions when determining NSR applicability is as old as the program itself. The CAA requires permitting for any "increase" in emissions, 42 U.S.C. §§ 7411, 7475, 7479, but it does not define the word "increase," leaving room for interpretation. Such ambiguity leaves EPA in charge of deciding how sources must determine whether an "increase" will occur. *New York*, 413 F.3d at 22–24. In fact, a different dispute over the ambiguities in the very same statutory provision resulted in the Supreme Court's now famous (or infamous) *Chevron* decision on agency deference. *Chevron U.S.A., Inc. v. Natural Res. Def. Council*, 467 U.S. 837, 865 (1984) (concluding that the EPA's method of calculating emissions is a reasonable policy choice).

In an attempt to define the ambiguous word "increase," EPA has adopted increasingly complex regulations, but those rules have consistently maintained that source owners must be allowed to consider the overall "net effect" of a project on the stationary source as a whole. This idea has taken on many names and forms over time—referred to variously as the "bubble concept," "contemporaneous netting," "project netting," and now "Project Emissions Accounting." The only debate has been in deciding what rules are needed to right-size the NSR permitting program so that permits are required only for those projects that truly warrant such review.

No one can predict with any certainty how the D.C. Circuit will receive PEA. However, the D.C. Circuit already decided long ago that the CAA allows EPA significant discretion in deciding how sources should calculate emissions increases and decreases in applying NSR permitting requirements.

The issue of whether and how to count multiple changes in emissions under NSR arose in the context of legal challenges to EPA's 1978 NSR rules. *Alabama Power Co. v. Costle*, 636 F.2d 323, 399–403 (D.C. Cir. 1980). In that lengthy opinion, specifically the portion authored by Judge Wilkey, the court recognized that there were two logical ways to interpret the word "increase" in the statute—a source must either determine the "net effect" or count only increases and ignore decreases.

The court resoundingly rejected the idea that decreases should be ignored, calling the idea "unreasonable and contrary to the expressed purposes of the [Act]." Instead, the court decided that the statute requires EPA to "look at any change proposed for a plant, and decide whether the *net effect* of all the steps involved in *that change* is to increase the emission of any air pollutant[;] this is commonly termed the 'bubble' concept." *Id*. at 401 (emphasis added). To explain its reasoning, the court noted that "[t]he bubble concept is precisely suited to preserve air quality within a framework that allows cost-efficient, flexible planning for industrial expansion and improvement." *Id*. at 402.

Notably, the court referred to the "net effect" of "that change" in describing its understanding of the issue, confirming that its focus was on a single project, not multiple projects. Later in the opinion, the court agreed that other "contemporaneous" changes might also be considered as an "offset" to a project that would increase emissions. But that point was a sidebar and made merely as one example of how "[t]he Agency retains substantial discretion in applying the bubble concept," given the ambiguity inherent in the word "increase." *Id*.

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Despite that discretion, the court imposed an important constraint on EPA: It must be consistent. And that proved to be the stumbling block for EPA's 1978 regulations. Although EPA had included a "qualified form" of the bubble concept in its rule, the court rejected it because the agency had tried to have it both ways—it counted decreases in applying substantive requirements (i.e., best available control technology) but ignored decreases in applying procedural requirements (i.e., permitting procedures). The court made clear that consistency matters:

> There is no basis in the Act for establishing two different definitions of "modification," one that looks only at net increases for substantive requirements, and a second that looks at all increases, without allowing offsets, for procedural requirements. If a particular set of industrial alterations is not a "modification" within the terms of the Act, then it is subject to neither procedural nor substantive PSD requirements.

Id. at 403.

EPA Rules and Guidance: Evolution of the Two-Step Test

Immediately after *Alabama Power*, EPA revised its rules for determining when a project should be expected to result in a "net emissions increase." However, its 1980 rules imposed an unexpected restriction on netting: All contemporaneous increases and decreases over five years, not just those due to a single project, must be considered in every review. Requirements for Preparation, Adoption, and Submittal of Implementation Plans; Approval and Promulgation of Implementation Plans, 45 Fed. Reg. 52,676, 52,735 (Aug. 7, 1980). EPA essentially *required* netting over five years for *every* project—permitting was required if all projects over five years increased emissions significantly, regardless of whether the individual project under review did so on its own. *Id*. at 52,702.

Recognizing that netting should not be mandatory in every case, EPA attempted to reverse course almost immediately. Just five months after those rules were written, in January 1981, EPA issued guidance to confirm that a project that alone does not significantly increase emissions will not trigger permitting, regardless of what other projects preceded it. EPA Memorandum, *Accumulation of Emissions* (Jan. 5, 1983) (reaffirming a memorandum issued in 1981 that interpreted the regulations to "exclude any modification from applicability that did not in and of itself result in a significant emission increase," and encouraging rule revisions to clarify the point). The author of that guidance expressed a desire for regulatory revisions to clarify the point, but they did not come, at least not quickly—the relevant definitions looked nearly the same until EPA reformed the rules in 2002.

Without clarifying rule revisions, the guidance on single projects that result in both increases and decreases (again, requiring two stacks) was lost in the shuffle. Even though the D.C. Circuit first framed the question around a single project in requiring netting in *Alabama Power*—i.e., the "*net effect*" of "*that change*"—EPA began to refer to its rules as requiring a two-step process: Step 1, count increases due to the project itself; if significant, then apply Step 2 netting. That construct gave the impression that no netting was allowed until Step 2, when all other projects in the preceding five years must also count.

A statement from EPA's 1990 Draft NSR Workshop Manual is perhaps the best example of this way of thinking. EPA opined that "when any emissions decrease is claimed (*including those associated with the proposed modification*), all source-wide creditable and contemporaneous emissions increases and decreases of the pollutant subject to netting must be included in the PSD applicability determination." *EPA Draft NSR Workshop Manual*, at A.36 (1990). Subsequent EPA guidance documents tagged on and extended the idea. EPA Letter from Jole C. Luehrs, EPA Region 6, to Mr. Michael Carbon, Radian Int'l, at 2 (Nov. 26, 1997). Thus, just like the text of the 1980 rules appeared to require, EPA's guidance restricted netting to only "increases," unless and until all other projects over five years were also counted.

Then, in the New Year's Eve NSR reform rule of 2002, EPA made a change that seemed to finally realign its rules with the statute and *Alabama Power* and finally fulfill the request for clarifying revisions in its own 1981 guidance. In that rule (in a provision upheld by the D.C. Circuit), EPA confirmed that a project only triggers permitting if it results in *both* a significant emissions increase *and* a significant *net* emissions increase. Prevention of Significant Deterioration (PSD) and Nonattainment New Source Review (NSR); Final Rule and Proposed Rule, 67 Fed. Reg. 80,186 (Dec. 31, 2002). This more-clear expression of the two-part test confirmed that a project that does not result in a significant increase alone does not trigger permitting, regardless of the effect of any other projects that may have been done in the past.

Most importantly, EPA defined a "significant emissions increase" as the "sum of the *differences*" between baseline and projected actual emissions. Because "difference" can be positive or negative, the use of that word indicates that both increases and decreases should count even when just evaluating a project alone, before getting to the second step of "contemporaneous netting." There was just one twist—in a "hybrid test" for projects that involved both new and existing emissions units, EPA did not use the word "difference." Instead, it used the word "increase."

This convoluted history confused many, including state permitting authorities, some of whom counted decreases in evaluating individual projects, while others did not. In light of these inconsistencies, EPA attempted in 2006 to clarify its policy with a rule. More than a quarter century after *Alabama Power*, EPA proposed to expressly authorize what it then called for the first time "project netting." Prevention of Significant Deterioration (PSD) and Nonattainment New Source Review (NSR): Debottlenecking, Aggregation, and Project Netting, 71 Fed. Reg. 54,235, 54,248 (Sept. 14, 2006). In a brief notice of proposed rulemaking (occupying only two pages of the *Federal Register*), EPA noted that its own "past determinations" had required sources to count only increases. Then EPA proposed to allow "project netting" by counting decreases, subject to certain restrictions, including enforceable limits.

EPA never finalized its 2006 proposal. In 2009, it finalized the portion of the proposal related to "aggregation" but confirmed that it was taking "no action" on "project netting." Shortly after that decision, under a new presidential administration, EPA began issuing new guidance documents to reinforce its pre-2002 policy by claiming that, even under the 2002 rules, "project netting" could not be allowed. EPA Letter from Barbara A. Finazzo, EPA Region 2, to Ms. Kathleen Antoine, HOVENSA, L.L.C., at 5 (Mar. 2010).

Counting Decreases Makes Sense

Despite this back-and-forth, the fact remains that the CAA requires NSR permitting only for a "change" (singular) that results in an emissions "increase" (ambiguous), and the D.C. Circuit held years ago that EPA must allow sources to consider the "net effect" in evaluating any such "change." EPA's contemporaneous netting policy, while a helpful option for considering multiple changes, is really beside the point. When a single change results in both increases and decreases, that change only triggers NSR permitting if the net effect of it results in a significant emissions increase. *Alabama Power* also made clear that EPA should not have two different tests—one counting decreases, and the other not. Even within its wide discretion, EPA's policy must be consistent.

PEA upholds these principles far better than EPA's prior policies. When a single "change" causes one unit to increase emissions and another to decrease emissions, the "net effect" should determine whether permitting is warranted.

The question then becomes: What is a single "change"? To fully answer that question would require another slog through NSR history, but in short EPA's recent action on "project aggregation" confirms that a "change" must include all activities that are "substantially related." Prevention of Significant Deterioration (PSD) and Nonattainment New Source Review (NNSR): Aggregation; Reconsideration, 83 Fed. Reg. 57,324 (Nov. 15, 2018). While that policy also requires a case-by-case analysis,

it confirms that there is some basis for distinguishing between changes, such that a single change can be identified and evaluated for its "net effect."

The importance of a clear "aggregation" policy in establishing a clear policy on "netting" was not lost on EPA. EPA made sure in its PEA guidance and proposed rule to note that the two policies should work together to allow sources to pair an emissions-decreasing project with an emissions-increasing project to ensure the combined project would not trigger NSR. And why not, particularly because the threat of NSR permitting might otherwise discourage the whole deal, despite its potential environmental benefits.

Challengers to EPA's new PEA rule almost certainly will complain that the policy will cause more pollution by allowing more projects to proceed without oversight. However, less permitting does not necessarily mean more emissions. As noted above, the policy will only be relevant in relatively few cases, and therefore it is unlikely to have a real effect on emissions either way. To the extent it has any effect at all, EPA suggests it is more likely to reduce emissions by encouraging source owners to seek out ways of decreasing emissions so that valuable projects may proceed without the cost and delays of permitting. Creating such incentives for emission reductions should be a universally shared goal, despite the controversy that always surrounds NSR.

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