



EPA Proposes Unprecedented NOx Ozone Season Reductions to Address Good Neighbor Obligations for the 2015 Ozone NAAQS

06.02.2022

EPA proposed a transformative rule to address the obligations of 26 states for the 2015 Ozone National Ambient Air Quality Standards (2015 Ozone NAAQS). The rule is a federal implementation plan (FIP) rooted in the Clean Air Act (CAA) Good Neighbor provisions (the Proposed FIP). The Proposed FIP provides for ozone season (May 1-September 30) NOx reductions from electric generating units (EGUs) beginning in 2023 and industrial stationary sources (non-EGUs) by 2026. The timeline is aligned with the August 3, 2024 ozone attainment date for areas classified as Moderate nonattainment, with further NOx reductions prior to the August 3, 2027 ozone attainment date for areas classified as Serious nonattainment for the 2015 Ozone NAAQS.

The FIP impacts two categories of states. Upwind states are included for which EPA determined interstate transport of ozone precursor emissions is significantly contributing to nonattainment or maintenance of the 2015 ozone NAAQS in downwind states. The second category of states includes those that do not have an approved ozone transport SIP for the 2015 ozone NAAQS, including states that did not submit a SIP. Delaware is also included based on updated air quality modeling changes even though it is in neither category. Some states are in both categories.

The Proposed Rule used the traditional multi-factor transport framework for identifying upwind emissions that constitute significant contributions for downwind states. The steps are: (1) identifying downwind receptors projected to be in future nonattainment; (2) determining the upwind states to link as contributors to downwind air quality issues; (3) identifying upwind emissions in linked states that significantly contribute to downwind nonattainment; and (4) implementing emissions reductions for states with emissions that significantly contribute to downwind nonattainment. The Proposed FIP describes ozone transport modeling from upwind states and applies an upwind contribution threshold of 0.70 ppb. States below the contribution threshold were not included in the FIP (Alaska, Arizona, Colorado, Connecticut, the District of Columbia, Florida, Georgia, Hawaii, Idaho, Iowa, Kansas, Maine, Massachusetts, Montana, Nebraska, New Hampshire, New Mexico, North Carolina, North Dakota, Rhode Island, South Carolina, South Dakota, Vermont, and Washington). States not on this list were

found to be upwind contributors subject to this rule.

For EGUs, EPA evaluated NO_x emission control technologies. EPA evaluated selective catalytic reduction (SCR) (including optimization and turning on idled SCRs), state-of-the-art NO_x combustion technologies, selective non-catalytic reduction (SNCR) (including optimizing and turning on idled SNCRs), new SCRs, new SNCRs, and generation shifting. For non-EGUs, impacted industries include cement, glass, iron and steel, pipeline transportation of natural gas, and high emitting equipment from Tier 2 industries (Basic Chemical Manufacturing, Petroleum and Coal Products Manufacturing, Metal Ore Mining, Lime and Gypsum Product Manufacturing, and Pulp, Paper, and Paperboard Mills). Non-EGUs are not subject to CSAPR trading, but EPA proposes various industry-specific NO_x emissions limitations.

Why is this Rulemaking so Unique?

- It impacts both EGUs and non-EGUs.
- It is a FIP, not a SIP Call or a rule update of the current CSAPR program. This mechanism is different than the prior tools EPA has used to address multi-state obligations.
- EGU NO_x rate assumptions for 2026 are lower than ever proposed. EPA identifies a rate of 0.05 lb/mmBTU based on controls performance (SCR). The last CSAPR rule relied on a 0.08 lb/mmBTU rate, just last year. EPA acknowledges, "[t]hese controls represent greater stringency in upwind EGU controls than in EPA's most recent ozone transport rulemakings, such as the CSAPR Update and the Revised CSAPR Update."
- EPA adds an EGU daily NO_x emissions rate for larger coal-fired EGUs during the ozone season (May-September) beginning in 2024 and 2027, depending on whether the EGU currently controls NO_x with a SCR. This is a belt and suspenders approach that EPA justifies because "CSAPR trading programs [have] revealed instances where EGUs have reduced their SCRs' performance on a given day, or across the entire ozone seasons in some cases, including high ozone days."
- For EGUs, EPA introduces new features that will likely ratchet down available allocations as a result of EGU retirements or repower scenarios, changes in heat input, modeled generation shifting, and excess banked allowances. These concepts are called dynamic budgeting and bank recalibration. EPA is transparent that it intends to force EGU control technology installation.
- Reductions for non-EGUs are the first of their type using the Good Neighbor provision.

What are We likely to See in Comments?

We expect to see a large number of comments from a variety of industries and environmental organizations. Several likely EGU and non-EGU comment topics may include:

- Whether the source datasets and modeling EPA used to determine which states are upwind contributors are accurate and sound. Technical experts will dig into the data and assumptions EPA used;
- EPA rejects the higher 1 ppb upwind to downwind contribution screening value in favor of a 1%

(0.70 ppb) value. This value defines which states are upwind contributors and is used in EPA's over control analysis. In a prior 2018 Memorandum, EPA proposed higher contribution threshold alternatives;

- Some NOx control technology emission rate assumptions are not technically achievable and certain costs of control installations are underestimated;
- EPA's chosen EGU daily emission rate is too low because it does not take control equipment operational constraints into consideration;
- Generation shifting, which is factored into EGU state budgets, is not an appropriate emission reduction tool; and
- Dynamic budget setting and bank recalibration concepts from EGU budgets remove market incentives for EGUs to reduce emissions.

Finally, states may opt out of the FIP for EGUs and non-EGUs. EPA lays out SIP approach options. EPA has requested comment on all aspects of the Proposed FIP. Comments are due on June 6.

Federal Implementation Plan Addressing Regional Ozone Transport for the 2015 Ozone National Ambient Air Quality Standard, 87 Fed. Reg. 20036 (April 6, 2022).

EPA Memorandum from P. Tsirigotis to Regional Air Division Directors, Regions 1-10, ?Analysis of Contribution Thresholds for use in Clean Air Act Section 110(a)(2)(D)(i)(I) Interstate Transport State Implementation Plan Submissions for the 2015 Ozone National Ambient Air Quality Standards,? August 31, 2018.

CAA Section 110(a)(2)(D)(i)(I).

Related People

- Liz Williamson ? 804.420.6050 ? ewilliamson@williamsmullen.com

Related Services

- Environment & Natural Resources