

National Tribal Air Association

Fact Sheet

Proposal to Strengthen the New Source Performance Standards for Stationary Combustion <u>Turbines</u>

Docket ID No. EPA-HQ-OAR-2024-0419

The comment deadline is **March 13, 2025.** Your comment letter can be submitted electronically to the <u>Federal Rulemaking Portal</u>. <u>https://www.regulations.gov/</u> OR email to <u>a-r-Docket@epa.gov</u>.

Overview

Pursuant to the Clean Air Act (CAA) Section 111, EPA is proposing to revise and strengthen the New Source Emissions Standards (NSPS) regarding emissions of nitrogen oxides from new stationary combustion turbines. Tribes have been invited to consult with EPA regarding this proposal and to submit comments prior to March 13, 2025 to the rule-making Docket No. EPA-HQ-OAR-2024-0419.

Background

The Clean Air Act (CAA) Section 111 requires EPA to establish standards of performance for new emissions sources that cause or contribute significantly to air pollution which may reasonably be anticipated to endanger public health or welfare. Further EPA is required to review, and, if appropriate revise, the adequacy of such New Source Performance Standards every eight years.

Stationary combustion turbines are widely used to generate electricity and to power compressors. Natural gas is the most common fuel. Nitrogen oxides (NOx), a "criteria" air pollutant. are produced during this combustion process. EPA last revised the NSPS for these combustion units in 2006. The current proposal would strengthen NOx emissions standards for new units including a provision that would include hydrogen-fueled combustors.

Large stationary combustion turbines have become an increasingly important source of electricity in the United States as well as powering natural gas compressors. According to EPA's current inventory 130 new combustion turbines have been constructed in the last five years. Many factors, including energy demand, operating flexibility, fuel prices, technology advancements, and anticipated national energy policies. suggest that the growth of this energy technology will continue for the foreseeable future. The proposed standards would apply to facilities that begin construction, reconstruction or modification following publication in the Federal Register.



Nitrogen Oxides

Atmospheric emissions of NOx from anthropogenic sources pose many threats to human health and the environment. Among the known adverse effects of this family of gases are:

- Respiratory disease including asthma
- Elevated concentrations of nitrate particles $(PM_{2.5})$ with resulting effects on respiratory and cardiovascular systems
- Contributions to tropospheric ozone and photochemical smog
- Acidification of terrestrial and aquatic ecosystems
- Visibility impairment

In short, optimal emissions controls on combustion turbines will mitigate the many adverse consequences of NOx emissions.

NOx Emissions Control Technologies

EPA has determined that combustion controls coupled with post-combustion selective catalytic reduction (SCR) constitutes the "best system of emission reduction" (BSER). SCR has been a preferred NOx emissions control technology for many source categories for several decades. It's widespread use has been reliable and effective in reducing NOx emissions from fossil fuel – fired combustors.

Variable Standards Among Sources

The proposed standards continue the current emissions control policies for this source sector of different requirements for subdivisions of sources. That is, three size categories are differentiated, and additional subdivisions are proposed based on annual time and duration of turbine utilization. In general, large turbines burning natural gas, and operating the most number of hours per year, would be required to achieve the lowest NOx emission rates per unit of heat input. Concurrently, certain combustion turbines, such as relatively small units that operate at low loads would be exempt from SCR requirements. This graduated approach to NSPS requirements is purportedly driven by cost effectiveness.

Importance to Tribes

Atmospheric emissions of nitrogen oxides (NOx) cause widespread adverse effects on American Indians and Alaska Native Villagers. Elevated levels of NOx, and resulting ozone, fine particulate matter and photochemical smog, contribute to cardiovascular disease, asthma, emphysema, other chronic respiratory diseases, and premature death. Acidification of precipitation impacts food crops on tribal lands as well as entire ecosystems. Vistas of sacred mountains are impaired by nitrate particles originating from anthropogenic NOx emissions. Reducing emissions of NOx is exceedingly important to many tribal communities and their environments.

How to Comment on EPA's Proposed Rule

- EPA will receive comments of this proposal until March 13, 2025.



- Comments on the Proposed New Source Performance Standards for Stationary Turbines and Stationary Gas Turbines should cite Docket ID No. EPA-HQ-OAR-2024-0419 and be submitted via either: Federal eRulemaking Portal: <u>https://www.regulations.gov/</u> (preferred) OR email to <a-r-Docket@epa.gov, including in the Subject Line "Docket ID No. EPA-HQ-OAR-2024-0419".
- NTAA has prepared a Policy Resource Kit for tribes to use to comment.
- For more information see EPA's website.