

Proposed Rulemaking: Additional RACT Requirements for Major Sources of NO_x and VOCs for the 2015 Ozone NAAQS (25 Pa. Code Chapters 121 and 129)

May 12, 2021

Background

- The Clean Air Act (CAA) provides that the Administrator of the United States Environmental Protection Agency (EPA) must establish National Ambient Air Quality Standards (NAAQS) for criteria air pollutants, of which ground-level ozone is one, at levels that protect public health and welfare, including the environment.
- On October 26, 2015, the EPA lowered the primary and secondary NAAQS for ozone to 0.070 ppm.

Purpose

- Re-evaluation of Reasonably Available Control Technology (RACT) is a Federal requirement to be fulfilled each time an ozone NAAQS is promulgated for nonattainment areas.
- Because the entire Commonwealth is in the Ozone Transport Region and is treated as a moderate nonattainment area, RACT is applicable to major sources of nitrogen oxides (NO_x) and/or volatile organic compounds (VOC) statewide.

Overview

- This proposed rulemaking (known as RACT III) would establish presumptive RACT requirements and emission limitations for certain source categories at major stationary facilities of NO_x and VOC emissions.
- Owners and operators of sources without presumptive requirements or limitations, or those unable to meet the presumptive limitations, must submit a case-by-case RACT analysis.

Overview

The presumptive RACT requirements in the proposed rulemaking are the same or more stringent than those found in the RACT I and RACT II rules.

Affected Parties

- RACT requirements are applicable to the owners and operators of all sources in Pennsylvania that emit or have a potential to emit greater than 100 tons per year (TPY) of NO_x or 50 TPY of VOC.
- There are approximately 500 Title V facility owners and operators in Pennsylvania that may be subject to this proposed rulemaking.

Differences from RACT II

- This proposed rulemaking would include presumptive NOx emission limitations for the following source categories.
 - Propane and LPG-fired combustion units
 - Lime kilns
 - Glass melting furnaces
 - Direct-fired heaters, furnaces, and ovens
- Including these source categories should lower the number of case-by-case RACT determinations.

Differences from RACT II

- This proposed rulemaking would include more stringent presumptive NOx emission limitations for the following source categories.
 - Simple-cycle natural gas-fired turbines
 - Engines
 - Cement kilns
 - Municipal waste combustors
- NOx emission averaging period for combustion units with CEMS is daily.

Differences from RACT II

- Presumptive NOx RACT emission limitations for coal-fired combustion units with selective catalytic reduction were no longer deemed approvable by the EPA as a result of the United State Court of Appeals for the Third Circuit's decision in *Sierra Club v. EPA*, ("*Sierra Club*") 972 F.3d 290 (3d Cir. 2020).
- Large coal-fired combustion units, including electric generating units, must perform a case-by-case analysis.

Economic Impacts

- Owners and operators undergoing case-by-case RACT evaluations must bear the costs of notifications and application fees, estimated to be \$4,000-\$6,000 per facility.
- Complying with applicable requirements by installing add-on control technology would have an annualized cost of less than \$3,750 per ton of NO_x and \$7,500 per ton of VOC emission reduction.

Environmental Impacts

- Implementation of the proposed control measures could reduce NO_x emissions by as much as 9,000 TPY from engines, turbines and municipal waste combustors.
- The measures in this proposed rulemaking are reasonably required to attain and maintain the health-and-welfare-based 2015 8-hour ozone NAAQS

Advisory Committee Review

The following advisory committees concurred with DEP's recommendation to present this proposed rulemaking to the EQB for consideration:

- Air Quality Technical Advisory Committee on May 7, 2020
- Citizens Advisory Council on May 19, 2020
- Small Business Compliance Advisory Committee on April 22, 2020

Recommendation

- DEP recommends the adoption of this proposed rulemaking.
- A 60-day public comment period with at least three virtual public hearings is recommended.



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