



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)

Environmental Quality Board Meeting

May 19, 2021

Background

- The Clean Air Act requires the United States Environmental Protection Agency (EPA) to 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 NO_x 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 NO_x emission limitations for the following source categories:
 - Simple-cycle natural gas-fired turbines
 - Engines
 - Cement kilns
 - Municipal waste combustors
- NO_x emission averaging period for combustion units with CEMS is daily.

Differences from RACT II

- Presumptive NO_x RACT emission limitations for coal-fired combustion units with selective catalytic reduction are no longer deemed approvable by the EPA as a result of the United States Court of Appeals for the Third Circuit's decision in *Sierra Club v. EPA*, 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
- Small Business Compliance Advisory Committee on April 22, 2020
- Citizens Advisory Council on May 19, 2020

Recommendation

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



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