



Bureau of Air Quality

Draft Final-Form Rulemaking 25 Pa. Code Chapters 121 and 129

Additional RACT Requirements for Major Sources of NO_x and VOCs for the 2015 Ozone NAAQS

Small Business Compliance Advisory Committee
April 27, 2022

Tom Wolf, Governor

Patrick McDonnell, Secretary

Rulemaking Outcomes

This final-form rulemaking will:

- Reduce emissions of oxides of nitrogen (NO_x) and volatile organic compounds (VOC), which are precursors to the formation of ground-level ozone.
- Reduce concentrations of ground-level ozone, which results in health benefits as well as benefits to vegetation and ecosystems.
- Provide co-benefits that may include increased energy efficiency and reduction of co-pollutants such as hazardous air pollutants and greenhouse gases.

Entities Subject to Rulemaking

- The rulemaking applies to stationary sources within existing facilities that have the potential to emit (PTE) 100 tons per year (TPY) of NO_x or 50 TPY of VOC.
 - “Existing” means sources or facilities which commenced operation on or before August 3, 2018.
 - The rulemaking does not apply to sources subject to certain requirements in Chapter 129 or sources with a PTE of less than one TPY of NO_x or VOC.
- The rulemaking also applies to sources at existing facilities that become major for NO_x or VOC after August 3, 2018.

Small Business

- The requirement to adopt and implement RACT requirements is Federally mandated.
- All businesses, whether or not meeting the designation of small business, that are major NO_x emitting or major VOC emitting facilities, will be subject to the RACT III rulemaking.
- DEP anticipates that only a few small businesses will be subject to RACT III.
 - DEP estimates that there are 10-30 major facilities that are small businesses.
 - Not all small business-sized major facilities will be subject to RACT III.

What RACT is

- Reasonably Available Control Technology (RACT) is defined as “the lowest emission limitation that a particular source is capable of meeting by the application of control technology that is reasonably available considering technological and economic feasibility.”
- RACT analyses are done in a top-down fashion. Technically feasible control technologies are ranked from most effective control to least effective control and each one is analyzed for economic feasibility (cost analysis).

What RACT is

- The EPA Air Pollution Control Cost Manual sets procedures for calculating economic feasibility.
 - Capital costs are annualized using capital recovery factors.
 - Annual operating costs are added in to acquire a total annual cost.
 - The total annual cost is divided by annual emission reductions per pollutant.
 - The result is a cost per ton of pollutant reduced.
- Generally, RACT is not as stringent as Pennsylvania's Best Available Technology (BAT).
 - BAT applies to new sources at time of installation or modification.
 - RACT applies to existing sources.

▶ RACT III Presumptive Requirements

- The Department has analyzed what constitutes RACT for certain source categories to establish presumptive requirements for the 2015 Ozone NAAQS (RACT III).
- These requirements may take the form of work practices, emission limitations, or other emission control measures.
- If an owner or operator cannot meet presumptive RACT, they will need to propose an averaging plan or a case-by-case RACT requirement.

▶ RACT III Case-by-Case Requirements

- An owner or operator is required to submit a case-by-case RACT evaluation if there is no presumptive requirement for the source category.
- An owner or operator may submit a case-by-case RACT evaluation if they cannot meet the presumptive requirements due to facility or source-specific issues.
- Each case-by-case RACT evaluation is generally source specific and may consider circumstances unique to each source, facility, or situation.
- The outcome of a case-by-case RACT analysis may include specific control technologies, work practices, emission limitations, or any combination thereof.

EQB and Public Comment

- On May 19, 2021, the Environmental Quality Board (EQB) adopted the proposed rulemaking by a vote of 17-2.
- The proposed rulemaking was published for public comment on August 7, 2021.
- Three public hearings were held on September 7, 8, and 9. No testimony was received.
- The public comment period ended on October 12, 2021.
- The Department received comments from 25 commentators, including the Independent Regulatory Review Commission (IRRC), EPA, environmental advocacy groups, consultants, and the regulated community.

Reason for § 129.114(i)

- Because EPA will not approve a regulation that establishes a blanket approval for the Department to deem that case-by-case RACT II remains RACT for RACT III, the final-form rulemaking contains options in final-form subsection (i) for an owner or operator to submit an analysis demonstrating that the applicable RACT II conditions remain RACT for RACT III.
- Owners and operators of facilities that have added or modified sources since RACT II are not eligible to submit this analysis.

§ 129.114(i) Options

- If there is no new emission control technology available and RACT II cost-effectiveness is equal to or above certain thresholds, then the analysis shall contain:
 - How it was determined that no new technology exists.
 - List of technology that was evaluated for RACT II.
 - Summary of the RACT II cost analysis.
- If there is no new emission control technology available and RACT II cost-effectiveness is below certain thresholds, then the analysis shall contain:
 - How it was determined that no new technology exists.
 - List of technology that was evaluated for RACT II.
 - Newly updated cost analysis.

§ 129.114(i) Options

- If there is new emission control technology available, then the analysis shall contain a newly updated top-down RACT analysis.
- In all instances, the Department may request additional information from the owner or operator.

§ 129.114(j)

§ 129.114 continued

Under subsection (j), the Department will:

- Review the analyses.
- Publish notice in the *Pennsylvania Bulletin* and newspapers for a minimum 30-day public comment period and opportunity for public hearing for the public to review and comment on the analyses and supporting documentation.
- Prepare a summary of comments and responses.
- Issue the necessary plan approvals and operating permit modifications as appropriate in conformance with Chapter 127.

§ 129.114 (k)

§ 129.114 continued

Under final-form subsection (k), the Department will submit the following information described under subsection (j) to the Administrator of the EPA as a revision to the Commonwealth's SIP.

- The analyses, supporting documentation and summary of public comments and responses.
- The necessary plan approvals and operating permit modifications issued as appropriate.

Additional Information

The final rulemaking package, including the final-form Annex A, preamble, regulatory analysis form, comment response document and technical support document will be available when the rulemaking is considered by the Environmental Quality Board.

Anticipated Final Rulemaking Schedule

- Air Quality Technical Advisory Committee –
April 7, 2022
- Citizens Advisory Council Policy and Regulatory Oversight Committee – April 14, 2022
- Citizens Advisory Council – April 19, 2022
- Small Business Compliance Advisory Committee –
April 27, 2022
- Environmental Quality Board – 2nd/3rd Quarter 2022
- Final-Form Rulemaking Promulgated and submitted to EPA as State Implementation Plan revision –
4th Quarter 2022



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DEPARTMENT OF ENVIRONMENTAL PROTECTION



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