



pennsylvania

DEPARTMENT OF ENVIRONMENTAL PROTECTION

Bureau of Air Quality

RACT as a control strategy and SIP requirement

Sean Wenrich
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Tom Wolf, Governor

Patrick McDonnell, Acting Secretary

RACT Overview (1)

- Section 182 of the Federal Clean Air Act (CAA) requires States to adopt reasonably available control technology (RACT) requirements for existing major stationary sources of nitrogen oxides (NO_x) and volatile organic compounds (VOCs) in ozone nonattainment areas, including the Ozone Transport Region (OTR), established under Section 184 of the CAA.
- The CAA requires a re-evaluation of RACT and submission of a State Implementation Plan (SIP) revision to EPA following the promulgation of new national ambient air quality standards (NAAQS) including the 8-hour ozone standards.

RACT Overview (2)

- EPA defines RACT 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.”
- The term “reasonably available” rather than “best available” is intended to indicate greater flexibility for states to take into account the remaining economic life of the unit as well as factors that could increase the cost of installing a technology on an existing unit, when determining the appropriate control technology.
- RACT is not a “Transport Rule.”

RACT Options

- Control Techniques Guidelines (CTG)
 - Control of VOCs from stationary sources
- Presumptive RACT Emission Limitations and/or Requirements
 - Control of NO_x and VOCs from major stationary sources
- Alternative RACT Proposals
 - Control of NO_x and VOCs from major stationary sources determined on a case-by-case basis

RACT SIP Revision Requirements

- Adopted rules*
- Certifications, where appropriate, that existing provisions are RACT, including source-specific
- Negative declarations that there are no sources in the nonattainment area covered by a specific CTG source category

*implement control measures as expeditiously as practicable

State RACT Rule Presumptive RACT (1)

For Non-CTG Sources at Major Sources:

Step 1: Establish facility cutoff limits by pollutant

Step 2: Identify applicable sources at those facilities by pollutant

Step 3: Establish source cutoffs by pollutant

Step 4: Determine existing controls on applicable sources by pollutant

State RACT Rule Presumptive RACT (2)

For Non-CTG Sources at Major Sources (cont.):

Step 5: If existing controls are not determined to be RACT, establish new RACT emission limitations and/or requirements by pollutant considering technological and economic feasibility

Step 6: Compare findings to existing source emission limitations and/or requirements, actual emission data from like sources, federal requirements, and RACT emission limitations and/or requirements from other states

State RACT Rule Presumptive RACT (3)

For Non-CTG Sources at Major Sources (cont.):

Step 7: Determine the appropriate testing, monitoring, record keeping, and reporting requirements to comply with the RACT requirements

Step 8: Propose and adopt the final RACT rule

RACT Determinations

- Presumptive RACT determinations are included in state rules to be approved by EPA as SIP revisions.
- Case-by-case RACT determinations are included in permits to be approved by EPA as SIP revisions.
 - Only those portions of the permits that are RACT should be included in SIP submittal.
- RACT SIP revisions are due no later than 2 years after effective date of designation.

Alternative RACT Determinations

- For a given source type and pollutant, control strategies that are available
- Technological feasibility of control
- Economic feasibility of control
- Compare findings
 - Existing source emission limitations and/or requirements
 - Actual emission data from like sources
 - Federal requirements
 - RACT emission limitations and/or requirements from other states

Final Pennsylvania RACT II Rulemaking

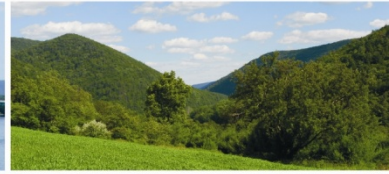
- On April 23, 2016, Pennsylvania promulgated additional RACT II requirements for major stationary sources of NO_x and VOCs.
- Affected units must demonstrate compliance with the RACT II regulation by **January 1, 2017**.
- The RACT II Rulemaking is currently going through the SIP approval process.

Other Resources to Identify Control Strategies

- Regional
 - MARAMA
 - OTC
 - MANE-VU
 - NACAA
- USEPA, Clean Air Technology Center
 - <https://www.epa.gov/catc>
- USEPA, Menu of Control Measures
 - <https://www.epa.gov/sites/production/files/2016-02/documents/menuofcontrolmeasures.pdf>
- Other states' RACT rules
- Stakeholder outreach



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Sean Wenrich
Division of Permits
717-772-3979
sewenrich@pa.gov