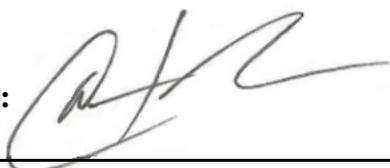


DAR-20: Economic and Technical Analysis for Reasonably Available Control Technology (RACT) Networks

New York State Department of Environmental Conservation

DEC Program Policy

<p>Issuing Authority: David Shaw, Director, Division of Air Resources</p> <p>Signature: </p>	<p>Title: Economic and Technical Analysis for Reasonably Available Control Technology (RACT) Networks</p>
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I. Summary: The Clean Air Act requires Reasonably Available Control Technology (RACT) on existing sources of air pollution in areas that do not meet national ambient air quality standards. “RACT” is the “[l]owest emission limit that a particular source is capable of meeting by application of control technology that is reasonably available, considering technological and economic feasibility.”¹ The RACT analysis is used to review all possible control technologies and strategies to determine RACT for a specific source. This policy includes procedures for the economic and technical feasibility analysis used to determine RACT and evaluate requests for *source specific RACT determinations*.

II. Policy: Emission sources of volatile organic compounds (VOC) and oxides of nitrogen (NO_x) located within the designated ozone nonattainment areas in New York State (NYS) must implement Reasonably Available Control Technology (RACT) to reduce those emissions. NYS air pollution control regulations that specifically regulate NO_x and VOC emissions are generically referred to as the “RACT regulations” and are listed in Section VI of this policy. RACT regulation applicability is calculated based on actual emissions of VOC and potential emissions of NO_x, since VOC emissions generally remain steady over time, whereas NO_x emissions may vary year to year.

In 1994, the Department of Environmental Conservation (the Department) established the following cost threshold to define economic feasibility:

VOC (Severe Ozone Non-attainment Area):	\$5,000/ton reduced
VOC (Marginal Ozone Non-attainment Area):	\$3,000/ton reduced
NO _x (statewide):	\$3,000/ton reduced

An emission source of VOC or NO_x will not be required to implement any emission reduction or control strategy that is more costly than the established threshold adjusted over time for inflation.

Where an emission source cannot comply with applicable presumptive RACT regulations due to technological and/or economic feasibility, an emission source owner may apply for a source specific RACT determination. To obtain a source specific RACT determination, an emission source owner must demonstrate that compliance with the applicable regulation is not technically or economically feasible, or that only partial compliance is feasible. Technical feasibility will be evaluated on an emission source specific basis according to requirements in the relevant RACT regulation and this policy. Economic feasibility demonstrations must be made according to the procedure specified in this policy. The RACT demonstration must include a list of all possible control technologies and strategies. The Department will issue a source specific RACT determination where a satisfactory source specific RACT demonstration is made.

Source specific RACT determinations will be included in the emission source owner's permit as facility specific monitoring conditions, cited to the regulation for which the source specific RACT determination is being granted. Once the permit is issued the source specific RACT determination will be sent to the USEPA for approval and inclusion as a single source State Implementation Plan (SIP) revision to the NYS SIP.

Source specific RACT determinations must be re-evaluated upon renewal of the emission source owner's permit and documented in the renewal package, unless the emission source owner chooses to comply with applicable presumptive RACT regulations. A re-evaluation must contain the latest control technologies and strategies available for review.

III. Purpose and Background: The Clean Air Act (CAA) requires that states with ozone nonattainment areas develop State Implementation Plans (SIPs) that will lead to attainment of the national ambient air quality standards (NAAQS) for ozone. This effort includes the development and implementation of regulations that require RACT for emission sources of VOCs and NO_x located within the designated ozone nonattainment areas.

NYS RACT regulations require subject facilities to meet either presumptive RACT requirements or source specific RACT requirements. The presumptive requirements may include but are not limited to emission limits, control efficiency requirements, specific control technologies, averaging plans, and fuel/raw material switching. In some cases, the presumptive RACT may not be achievable and a source specific RACT determination can be granted.

The Department relies on the U.S. Department of Labor, Bureau of Labor Statistics inflationary calculator² to adjust the RACT economic feasibility threshold over time for inflation. For example, \$3,000.00 dollars in 1994 equates to \$4,637.73 dollars in 2012, which is then rounded up to \$5,000 by the Department to ensure a level of conservatism.

The re-designation of an area from nonattainment to attainment (with respect to the National Ambient Air Quality Standard for Ozone) has no effect on any source specific RACT determination which may have been granted to emission sources in such an area. Once an emission source becomes subject to a RACT regulation, it will remain subject unless the regulation is subsequently repealed or amended to specifically alter this requirement. Thus, the source specific RACT determination from these requirements will remain valid and unaffected by any such re-designation.

IV. Responsibility: The Division of Air Resources (DAR) is responsible for maintaining and updating

² http://www.bls.gov/data/inflation_calculator.htm

this policy.

The Department's Regional DAR staff, in consultation with Central Office DAR staff, is responsible for reviewing RACT demonstrations and issuing source specific RACT determinations, as appropriate.

The Department's Central Office DAR staff is responsible for sending source specific RACT determinations to the USEPA as a single source SIP revision to the NYS SIP.

V. Procedure: A request for a source specific RACT determination must be submitted to the Department as part of an application for permit renewal or modification. An approved source specific RACT determination will be effective for the duration of the permit.

The following general information must be submitted as part of the application with each source specific RACT request:

- 1) The proposed control technology or strategy;
- 2) A price quote from manufacturers of control equipment, process equipment, or coatings, or raw material vendors. If possible, a minimum of three quotes should be included in the application for each control strategy. The lowest cost quote (for each control strategy) must be used in the final source specific RACT demonstration;
- 3) An economic analysis for air emissions control equipment (for each control strategy) based on Table I, attached; and
- 4) For sources subject to 6 NYCRR Part 228, the following demonstrations will be used to evaluate variance requests for sources subject to 6 NYCRR Part 228 that install control equipment but are unable to achieve the required removal efficiency, per 6 NYCRR §228-1.3(e):
 - A) A demonstration that the coating solution is at the maximum solids content that will allow the facility to meet production specification, and
 - B) A demonstration that the design of the capture system and the subsequent removal/destruction of VOC results in the maximum overall removal efficiency utilizing the applicable cost per ton value identified in Section II of this policy.

VI. RELATED REFERENCES:

New York State's RACT regulations are found in the following Parts, Subparts, and Sections of 6 NYCRR:

NOx RACT Regulations:

Section 212.10 – Reasonably Available Control Technology for Major Facilities

Section 212.12 – Hot Mix Asphalt Production Plants

Part 214 – Byproduct Coke Oven Batteries

Part 216 – Iron and/or Steel Processes

Subpart 220-1 – Portland Cement Plants

Subpart 220-2 – Glass Plants

Subpart 227-2 – Stationary Combustion Installations

VOC RACT Regulations:

Section 212.10 – Reasonably Available Control Technology for Major Facilities

Part 226 – Solvent Metal Cleaning Processes

Part 228 – Surface Coating Processes, Commercial and Industrial Adhesives, Sealants, and Primers

Part 229 – Petroleum and Volatile Organic Liquid Storage and Transfer

Part 230 – Gasoline Dispensing Sites and Transport Vehicles

Part 233 – Pharmaceutical and Cosmetic Manufacturing Processes

Part 234 – Graphic Arts