

FREQUENTLY ASKED QUESTIONS

Final Rulemaking Additional RACT Requirements for Major Sources of NO_x and VOCs 25 Pa. Code Chapters 121.1 and 129.111 – 129.115

The final-form regulation amends 25 Pa. Code Chapter 129 to adopt presumptive reasonably available control technology (RACT) requirements and RACT emission limitations for certain major stationary sources of oxides of nitrogen (NO_x) and volatile organic compound (VOC) emissions (hereinafter RACT III). The final-form rulemaking also provides for a petition process for an alternative compliance schedule, a facility-wide or system-wide NO_x emissions averaging plan, an alternative RACT proposal petition process, compliance demonstration, and notification and recordkeeping requirements. The final-form rulemaking also amends § 121.1 to revise or add terms to support interpretation of the RACT III final-form regulation.

1. Question: What is RACT?

DEP Response: RACT is defined in § 121.1 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.*” See also 44 FR 53762 (Sept. 17, 1979). When establishing RACT emission limitations and requirements to control NO_x and VOCs, DEP must take into consideration the technologies available and the cost of implementing these control measures. Control technology or emission limitations determined by DEP to be cost-prohibitive or technically infeasible will not be considered RACT.

The RACT III final-form regulation includes presumptive RACT requirements for various source categories including boilers, cement kilns, electric generating units, and gas turbines. The final-form regulation includes a petition process for an alternative compliance schedule, a facility-wide or system-wide NO_x emissions averaging plan provision, an alternative RACT proposal process, compliance demonstration, and notification and recordkeeping requirements. The final form regulation allows a facility owner/operator, under the alternative RACT proposal process, to submit a case-by-case RACT proposal to DEP by December 31, 2022. Any case-by-case RACT determination approved by DEP must be submitted to the United States Environmental Protection Agency (EPA) for approval as a revision to the Commonwealth’s State Implementation Plan (SIP).

2. Question: We just completed RACT II. Why are we required to undergo a RACT III analysis?

DEP Response: RACT II (25 Pa. Code §§ 129.96-129.100) only covered the 1997 and 2008 8-hour ozone National Ambient Air Quality Standards (NAAQS). The federal Clean Air Act (CAA) requires a reevaluation of RACT requirements each time that EPA promulgates a new or revised NAAQS. The EPA updated the ground-level ozone NAAQS in 2015 (80 FR 65292; Oct.

26, 2015) and so a separate RACT analysis (RACT III) must be completed for major NO_x and VOC emitting facilities.

3. Question: What regions of Pennsylvania are affected?

DEP Response: The entire Commonwealth is treated as a moderate ozone nonattainment area due to the Pennsylvania's inclusion in the Ozone Transport Region established by Congress under the federal CAA. Therefore, the RACT III regulation must be implemented statewide.

4. Question: Are RACT III requirements applicable to the sources at my facility?

DEP Response: The RACT III regulation applies to any owner or operator of a "major NO_x-emitting facility" or a "major VOC-emitting facility," or both, as defined in § 121.1 that existed on or before August 3, 2018. Therefore, RACT requirements apply to all sources located at facilities that emit or have a potential to emit equal to or greater than 100 tons per year (TPY) of NO_x or 50 TPY of VOCs. The RACT III requirements also apply to owners or operators where a modification was made to their facility after August 3, 2018, that results in the source or facility meeting the definition of a "major NO_x-emitting facility" or a "major VOC-emitting facility," or both.

5. Question: If a facility with a potential to emit more than 100 tons per year of NO_x and/or 50 tons per year of VOC agrees to restrict facility-wide emissions less than 100 tpy NO_x and/or 50 tons per year VOC, do I need to comply with RACT III?

DEP Response: If a facility is willing to have an enforceable facility wide emission limit placed in their operating permit, then RACT III will no longer apply to the facility and the facility would not need to comply with RACT III requirements. The facility must have an enforceable permit condition in place no later than December 31, 2022.

6. Question: A facility's NO_x potential to emit (PTE) is more than 100 tons per year. The facility has also some VOC emitting sources, but the facility VOC PTE is less than 50 tons per year. Do VOC emitting sources have to comply with RACT III?

DEP Response: A facility must only comply with RACT III for the pollutant (NO_x or VOC) that exceeds the RACT applicability threshold. The RACT applicability thresholds are NO_x PTE of 100 TPY and VOC PTE of 50 TPY. For a facility with a NO_x PTE greater than 100 TPY and a VOC PTE less than 50 TPY, all NO_x emitting sources at the facility, which commenced operation prior to August 3, 2018, will have to comply with RACT III for their NO_x emissions. They will not have to comply with RACT III for their VOC emissions.

7. Question: How can I comply with these RACT III requirements?

DEP Response: The RACT III regulation includes three compliance options: (1) Compliance with presumptive RACT requirements and/or emission limitations for certain source categories; (2) Facility-wide or system-wide averaging for compliance with presumptive NO_x emission limitations; and (3) RACT requirements determined on a case-by-case basis for sources that either do not have an applicable presumptive requirement or emission limitation or cannot

comply with the applicable presumptive RACT requirement. for a source category. A source for which a presumptive RACT requirement does not exist must submit a case-by-case RACT proposal to DEP.

Presumptive RACT: § 129.112 (relating to presumptive RACT requirements, RACT emission limitations and petition for alternative compliance schedule) establishes presumptive RACT requirements and RACT emission limitations for certain source categories of major NOx emitting or VOC emitting facilities, or both, with which owners and operators shall comply with and provides a mechanism for requesting an alternative compliance schedule.

Facility-wide or system-wide averaging: § 129.113 (relating to facility-wide or system-wide NOx emissions averaging plan general requirements) establishes an alternative mechanism for demonstrating compliance when a major NOx emitting facility includes at least one air contamination source that is unable to meet the applicable presumptive RACT emission limitation in § 129.112. Owners and operators may average NOx emissions on either a facility-wide or system-wide basis; system-wide emissions averaging must be among sources under common control of the same owner or operator and within the same ozone nonattainment area in this Commonwealth.

Case-by-Case RACT Proposals: § 129.114 (relating to alternative RACT proposal and petition for alternative compliance schedule) establishes that if the owner or operator of a source at a major NOx or VOC emitting facility determines that it is technically and/or economically infeasible to meet the new presumptive RACT III emission standards, or if a particular source does not have a presumptive RACT III standard, the RACT III regulation provides for the submission of an alternative, case-by-case RACT proposal to the DEP by December 31, 2022. Please be advised that in cases where no controls are being installed (and hence there is no allowance for a petition for extension of time) the submission of this case-by-case proposal does not by itself provide any relief from the January 1, 2023 compliance deadline for the RACT requirements. Also, due to the short time remaining until the compliance date, coupled with the Department's technical review and public notice requirements, we cannot guarantee that action will be taken on any case-by-case RACT III proposal prior to January 1, 2023.

Please be aware that if a source was previously subject to RACT II case-by-case determinations, and that source has not been modified or changed, the owner or operator may, in lieu of doing another full case-by-case proposal for RACT III, submit a limited analysis, as specified in 25 Pa. Code Section 129.114(i). Please also be aware that RACT III contains a larger number of presumptive RACT categories than did RACT II. Therefore, it is possible that a source previously subject to a case-by-case determination under RACT II, may now qualify for presumptive requirements under RACT III.

8. Question: What is my compliance demonstration deadline?

DEP Response: An owner or operator of a “major NOx-emitting facility” or a “major VOC-emitting facility” as defined in 25 Pa. Code § 121.1 must demonstrate compliance with the RACT III requirements by January 1, 2023. This implementation date was established by EPA's

2015 ozone NAAQS implementation rule. (83 FR 62998; December 6, 2018; see also 40 CFR 51.1316(b)(3)).

9. Question: What if it is necessary to install a control device to comply with RACT III?

DEP Response: If an owner or operator is proposing to install an air cleaning device to meet a presumptive RACT emission limitation or RACT emission limitation determined on a case-by-case basis, the owner or operator may petition DEP for an alternative compliance schedule that goes beyond the January 1, 2023, compliance deadline. However, the RACT III regulation requires that the petition for an alternative compliance schedule or alternative RACT requirement (established on a case-by-case basis) be submitted to the DEP by December 31, 2022. Any petition approved by DEP must be incorporated in an applicable operating permit or plan approval. Due to the short time remaining until the compliance date, coupled with the Department's permit review and public notice requirements, we cannot guarantee that action will be taken on any RACT III alternative compliance schedule petitions prior to January 1, 2023. In order to provide the fullest opportunity for review of alternative compliance schedules prior to January 1, 2023, we recommend that the owners or operators of affected facilities submit any RACT III alternative compliance schedule petitions to the appropriate regional office as soon as possible. The Department will submit each approved petition for an alternative compliance schedule to the Administrator of the EPA for approval as a revision to the Commonwealth's SIP. Please note that the Department is unable to extend an alternative compliance schedule beyond August 3rd, 2024.

10. Question: Even if the facility is subject to RACT for NO_x, VOC, or both, are any individual sources exempt?

DEP Response: Individual sources with a potential to emit of less than 1 ton per year are exempt from RACT, even if the facility is subject. In addition, sources which commenced operation after August 3, 2018 are exempt from RACT III requirements. Sources which emit more than 1 ton per year but less than 5 tons per year of NO_x and less than 2.7 tons per year of VOC may comply with presumptive RACT through work practice standards.

11. Question: Is it permissible to use a previous stack test to comply with RACT III?

DEP Response: The RACT III regulation requires stack testing for certain sources by January 1, 2023. However, an owner or operator of that source may request a waiver of this requirement in order to use a previously Department-approved stack test performed one year before the effective date of adoption of the final form rulemaking when published as a final-form regulation. This date is November 12, 2021. The RACT III regulation provides that any such waiver must be requested by December 31, 2022. Please be advised that the submission of a stack test waiver request does not by itself provide any relief from the January 1, 2023 stack test deadline provided in the RACT III regulation.

12. Question: Which application should I submit to show compliance with the RACT III requirements?

DEP Response: You do not need to submit an application if all sources at the facility meet § 129.112 (relating to presumptive RACT requirements, RACT emission limitations and petition for alternative compliance schedule) requirements.

You need to submit a significant operating permit modification form if any source at a major facility demonstrates compliance using either the averaging provision or a case-by-case RACT determination. DEP will review your proposed compliance plan and incorporate the final determination and associated RACT compliance determination into your Title V operating permit through a significant operating permit modification. If you are planning to modify any existing equipment or install a control device, please contact DEP regarding the need to submit a plan approval application.

If a source was previously subject to RACT II case-by-case determinations, and that source has not been modified or changed, the owner or operator may, in lieu of doing another full case-by-case proposal for RACT III, submit a limited analysis, as specified in 25 Pa. Code Section 129.114(i). Unless otherwise required, this submission does not need to be part of a plan approval or operating permit modification and no fee would be charged.

13. Question: Where can I find the RACT III final rulemaking notice and more information about implementation of this rulemaking?

DEP Response: For more information about the RACT III final rulemaking, contact PA DEP's Bureau of Air Quality at 717-787-9702, the DEP regional air quality program nearest you, or visit www.dep.pa.gov.

Pennsylvania Bulletin link to the final rule making notice:

http://www.pacodeandbulletin.gov/secure/pabulletin/data/vol52/52-46/52_46_rr.pdf

EPA Approved Pennsylvania Source-Specific Requirements

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14. Question: I completed a case-by-case analysis for a source during RACT II but some control devices were above the \$7500/\$12000 per ton threshold specified in § 129.114(i) while others were below it. Which provision do I comply with for this source?

DEP Response: Each source/control device combination should be evaluated individually for the purpose of complying with RACT III through § 129.114(i). Control devices costing above the threshold should comply with § 129.114(i)(1)(i) and control devices below this threshold should comply with § 129.114(i)(1)(ii).

15. Question: I understand the concept of having each source/control device combination evaluated individually for the purpose of complying with RACT III through § 129.114(i). However, I did not complete a cost analysis for many source/control device combinations due to the fact that they were either technically infeasible or I installed a control device which achieved a higher emission reduction. Can these source/control device combinations still comply through § 129.114(i)?

DEP Response: Yes, these source/control device combinations may comply through § 129.114(i)(1)(i) by providing the Department with a statement that explains how the owner or operator determined that there is no new pollutant specific air cleaning device, air pollution control technology or technique available. This should include the sources referenced to do this (such as RACT/BACT/LAER Clearinghouse (RBLC)).

16. Question: If I need to perform a new RACT analysis, do I need to get new vendor quotes, or can I use previous vendor quotes and adjust with an EPA factor?

DEP Response: In this case, new vendor quotes would be required. If new vendor quotes cannot be obtained, then a justification narrative must be provided by the facility owner/operator in the RACT III analysis. This doesn't apply for sources complying with § 129.114(i)(1)(i).

17. Question: What is an operating day as it applies to the RACT III rule?

DEP Response: An operating day is a 24-hour period beginning at 12:00 midnight which the source operates at any time and produces emissions. This time period includes emissions that were generated during startups, shutdowns, or malfunctions. For sources subject to presumptive NO_x RACT III emission limits based on production output (e.g. pounds of NO_x per ton of glass pulled), any day when there is no production of the applicable product is not considered to be an operating day. The owner or operator needs to address emissions which occurred during the non-operating day separately for RACT.

18. Question: I have a combined-cycle turbine rated at greater than 180 MW. Are there any alternatives to meeting the presumptive NO_x and VOC emission limitations?

DEP Response: You may comply with the alternative of 0.015 lb NO_x/MMBtu found in 25 Pa. Code § 129.115(c)(1) in lieu of the 4 ppmvd NO_x @ 15% oxygen presumptive RACT emission limitation when firing natural gas or a noncommercial gaseous fuel. Unfortunately, due to mathematical and cross-reference errors, the mass per heat input alternative emission limitations found in 25 Pa. Code § 129.115(c)(2), (c)(3), and (c)(4) are not available at this time for VOC emissions or for firing fuel oil.