



## Ohio Administrative Code

### Rule 3745-21-11 Reasonably available control technology studies for non-CTG sources in ozone nonattainment areas.

Effective: April 1, 2025

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(A) The requirements of this rule apply to any facility which emits volatile organic compounds and meets one of the following conditions:

(1) The facility emits, or has the potential to emit as defined in rule 3745-21-01 of the Administrative Code, one hundred tons per year or more of VOC emissions from sources which are not controlled by Ohio's CTG regulations in this chapter or by categorical non-CTG RACT contained in rules 3745-21-12, 3745-21-14, 3745-21-16, 3745-21-21 and 3745-21-25 of the Administrative Code, and is located in Butler, Clermont, Cuyahoga, Geauga, Hamilton, Lake, Lorain, Medina, Portage, Summit, or Warren county as of March 27, 2022 or the date of the initial startup of the source, whichever is later.

(2) The facility emits, or has the potential to emit as defined in rule 3745-21-01 of the Administrative Code, fifty tons per year or more, but less than one hundred tons per year, of VOC emissions from sources which are not controlled by Ohio's CTG regulations in this chapter or by categorical non-CTG RACT contained in rules 3745-21-12, 3745-21-14, 3745-21-16, 3745-21-21 and 3745-21-25 of the Administrative Code, and is located in Cuyahoga, Geauga, Lake, Lorain, Medina, Portage, or Summit county as of the effective date of this rule or the date of initial startup of the source, whichever is later.

[Comment: The requirements of this chapter may not be applicable to certain sources due to the applicability provisions or the specific exemptions and exclusions contained within that rule.]

[Comment: For the purposes of this rule, "controlled by" is not limited to physical pollution controls, but may include other types of controls such as VOC content limitations, operational limits or work practices.]

(B) The owner or operator of any facility subject to this rule shall conduct a detailed engineering study, performed by an engineering consulting firm or other person or persons experienced in the



field of air pollution control, to determine the technical and economic feasibility of reducing the VOC emissions from the sources at the facility which are not controlled by Ohio's CTG regulations in this chapter and to define RACT for the source, providing the following information:

- (1) The complete facility name, Ohio EPA air program facility identification number, and address.
- (2) The name, title, address and telephone number of the owner or operator's representative within the company who is the contact person for this facility regarding the engineering study and affected sources.
- (3) The name, title, address and telephone number of the official who is responsible for approval of the engineering study.
- (4) The standard industrial classification code and source classification code numbers which are applicable to the facility's operations.
- (5) The following general information for each affected source:
  - (a) Current Ohio EPA application number.
  - (b) Company identification and Ohio EPA emissions unit identification number.
  - (c) Source description.
  - (d) Month and year installed.
  - (e) Normal operating schedule (hours per day, days per week and weeks per year).
  - (f) Annual production rates for each of the three full calendar years preceding the submission of a RACT study under this rule.
  - (g) Average and maximum daily production rates for each of the three full calendar years preceding the submission of a RACT study under this rule.



(h) The type of control equipment employed and the date installed.

(6) A plot plan which shows the general layout of the facility and the affected sources.

(7) The following emissions data for each affected source:

(a) Average daily VOC emissions (pounds per day of operation) based upon the highest average daily production rate for each of the three full calendar years preceding the submission of a RACT study under this rule or any other year that may be representative of the highest average daily emissions.

[Comment: The average daily production rate for a calendar year may be calculated in the following manner:

Average daily production rate = [(total production rate during the calendar year) / (number of days production occurred during the calendar year)]

Repeat the calculation for each of the three calendar years preceding the submission of a RACT study under this rule. The highest value of these three years is the representative value used to calculate the average daily VOC emissions per year.]

(b) Maximum daily VOC emissions (pounds per day of operation) based upon the highest maximum daily production rate for each of the three full calendar years preceding the submission of a RACT study under this rule or any year that may be more representative of the highest maximum daily emissions.

(c) Annual VOC emissions (tons per year) based upon the highest annual production rate for each of the three full calendar years preceding the submission of a RACT study under this rule or any year period that may be more representative of the annual production rate.

(d) General composition of the VOC emissions.

(e) If coating materials are used in the source, the company identification and formulation of each



coating [VOC content (pounds per gallon of coating and pounds per gallon of coating, excluding water), water content (per cent by volume), solids content (per cent by volume), and exempt organics content (per cent by volume)].

(f) Composition, density and quantity (pounds per day of operation and tons per year) of any clean-up solvents which were employed during the calendar year.

(g) Documentation of the efficiency of the existing control equipment.

(h) Documentation of any emissions testing which has been performed.

(8) A detailed discussion of the technical feasibility of employing each of the following types of control measures for each affected source (or combination of sources):

(a) Carbon adsorber (with and without recovery of the organic compounds).

(b) Thermal incinerator (with and without heat recovery).

(c) Catalytic incinerator (with and without heat recovery).

(d) Condenser.

(e) Scrubber.

(f) Any other such RACT alternatives not listed in paragraph (B)(8) of this rule that may be applicable to an affected source, or as are proposed by the owner or operator.

A detailed engineering discussion is not required for those control measures which are not applicable to a particular source.

(9) For each type of control measure that is determined to be technically feasible, an estimate of the control efficiency that can be achieved.



- (10) If coating materials are used in an affected source, a detailed discussion of the technical feasibility of converting to waterborne, high-solids or powder coatings to minimize or eliminate the VOC emissions (statements from several major coating suppliers should be obtained to document the conclusions).
- (11) A detailed discussion of the technical feasibility of modifying or replacing the source in order to minimize or eliminate the VOC emissions.
- (12) A quantification of the VOC emission reductions that could be achieved, at the production rates for the calendar year, by each control option that is determined to be technically feasible.
- (13) For each control option that is determined to be technically feasible, an estimate of the capital cost, annualized cost (including capital and operating costs), and the cost-effectiveness (annual dollars per ton of VOC removed annually).
- (14) A comparison and discussion of the advantages and disadvantages of control options that are determined to be technically feasible.
- (15) A recommended definition of RACT for the source, including one or more of the following:
- (a) Enforceable production limitations.
  - (b) Emissions limitations.
  - (c) Control efficiencies.
  - (d) Operating requirements.
- (16) An expeditious schedule for implementing the recommended definition of RACT, including milestones for awarding contracts, initiating construction, completing construction, and performing emissions testing, if necessary, to demonstrate compliance with the approved definition of RACT.
- (17) Clean and detailed documentation of all calculations of the VOC emissions, including all



assumptions made.

(18) Capital and operating costs and cost-effectiveness estimates calculated in a manner consistent with the most recent edition of the "United States environmental protection agency air pollution control cost manual."

(C) If, within the five years prior to submitting a RACT study under this rule, the Ohio EPA has defined best available technology, pursuant to section 3704.01 of the Revised Code, for VOC emissions from a source which is subject to this rule, and the owner or operator is employing or has committed to employ the best available technology, the owner or operator may provide the following information to the director in satisfaction of paragraph (B) of this rule:

(1) All information required by paragraphs (B)(1), (B)(2), (B)(4), (B)(5) and (B)(7) of this rule.

(2) Copies of the documents and technical information that support the existing best available technology determination.

(3) The name, title, address and telephone number of the official who is responsible for the information submitted in accordance with paragraph (C) of this rule.

If upon review of this information, the director determines that the information does not or may not indicate that the definition of best available technology satisfies the requirements of this chapter, the director will so notify the owner or operator, and the owner or operator shall conduct a full RACT engineering study in accordance with paragraph (B) of this rule.

(D) The owner or operator of a source subject to this rule shall submit a complete RACT study to the Ohio environmental protection agency within one year of becoming subject to this rule. The director may approve an alternate schedule for the submission of the detailed engineering study if additional time is required to ensure that the study is complete, comprehensive, and accurate.

(E) Any facility located in Butler, Clermont, Cuyahoga, Geauga, Hamilton, Lake, Lorain, Medina, Portage, Summit, or Warren county for which the director has established a site-specific definition of RACT in this chapter prior to March 27, 2022 shall submit an updated RACT study to the Ohio



environmental protection agency by March 27, 2023.

(F) Any definition of RACT and schedule of compliance for an affected source that are approved by the director will be submitted to and approved by the United States environmental protection agency as a revision of the Ohio state implementation plan.