

TECHNICAL SUPPORT DOCUMENT FOR NEW CTG RACT AIR QUALITY REGULATION SECTION 108, “VOC EMISSIONS CONTROL FOR PAPER, FILM, FOIL, FABRIC, OR VINYL COATING OPERATIONS,” FOR 2015 OZONE NAAQS SIP

Background

On December 19, 2024, the U.S. Environmental Protection Agency (EPA) reclassified Hydrographic Area (HA) 212 (the Las Vegas Valley) as a serious ozone nonattainment area after finding that the area failed to meet its August 3, 2024, attainment date (89 FR 103657). This reclassification triggered an obligation for the Department of Environment and Sustainability, Division of Air Quality (DAQ) to prepare a 2015 ozone National Ambient Air Quality Standards (NAAQS) attainment plan for the serious nonattainment area. Section 182(b)(2)(A) requires moderate-and-higher ozone nonattainment areas to implement reasonably available control technology (RACT) for all Control Techniques Guidelines (CTGs) to reduce volatile organic compound (VOC) emissions.

EPA recommends VOC emissions control requirements (presumptive RACT) that air pollution control agencies may follow to meet the statutory CTG RACT requirement. An air pollution control agency may adopt EPA’s presumptive RACT level in its rules or establish a different level of control, as the agency determines appropriate.

While preparing the moderate area State Implementation Plan (SIP), DAQ identified 11 CTG source categories and promulgated rules covering 10 of them. These existing rules ensure at least the presumptive RACT level of control for each covered CTG source category. As part of the serious SIP submittal, DAQ conducted an updated CTG applicability review and is proposing this new rule to cover two CTG source categories identified as present in HA 212, but for which DAQ had not yet promulgated rules. Section 108 of the Clark County Air Quality Regulations (AQRs) establishes the applicability of the CTG RACT requirements and provides industry-relevant definitions; exemptions for the smallest emitters; emissions standards based on EPA’s presumptive RACT recommendations; detailed work practices requirements for the usage, storage, handling, and disposal of VOC-containing materials; permitting or registration requirements; notification, recordkeeping, and reporting requirements to support compliance verification; and applicable compliance dates.

New Rule

DAQ identified two sources with operations covered by a CTG category (CTG sources) that contribute to the formation of ground-level ozone in HA 212, and for which DAQ had not already established CTG RACT rules. DAQ is proposing one new CTG RACT rule to regulate both source categories as part of its 2015 ozone NAAQS serious nonattainment SIP.

AQR 108, “VOC Emissions Control for Paper, Film, Foil, Fabric or Vinyl Coating Operations”

AQR 108 applies to stationary sources in HA 212 or in a designated ozone nonattainment area classified as “moderate” or higher on or after January 5, 2023. It establishes requirements for owners or operators with projected maximum emissions (PME) of VOCs equal to or greater than 3.0 tons per calendar year (tpy) from paper, film, foil, fabric, or vinyl coating operations.

Owners or operators subject to AQR 108 must comply with work practices, compliance obligations, and registration, notification, recordkeeping, and reporting requirements, as applicable. In addition, fabric or vinyl coating operations with PME of VOCs equal to or greater than 3.0 tpy, and paper, film, or foil coating operations with an uncontrolled potential to emit (PTE) VOCs of 25 tpy or greater, must comply with emissions standards. Any stationary source with a PME of VOCs less than 3.0 tpy must comply with work practice requirements for storing, handling, and disposing of VOC-containing coatings and waste materials. All subject owners or operators must comply with this rule’s recordkeeping, notification, and registration requirements.

AQR 108 is not applicable to any stationary source using less than 500 gallons (1,892 L) of coatings per calendar year in paper, film, foil, fabric, or vinyl coating operations or certain other listed activities. AQR 108 is also not applicable to sources located in an area classified as attainment or marginal nonattainment for ozone.

General Requirements

Applicability and Use of Projected Maximum Emissions

As a general policy, EPA allows state and local air pollution control agencies to exclude sources emitting less than approximately 15 lb/day (or up to 3 tpy of VOCs) from CTG RACT requirements. EPA has allowed states to interpret this general applicability threshold on the basis of either actual emissions or PTE, and has approved both types of rules for SIP incorporation.

A PTE applicability threshold is generally considered more stringent than one of actual emissions, and it has the advantage of creating greater stability in CTG RACT applicability; once a source becomes subject to the rule, it remains subject unless it undertakes an emissions reduction project. With an actuals-based approach, a source could move in and out of applicability from year to year depending on its emissions during the previous year. To minimize disruptions in applicability, many states that include an actuals-based applicability threshold also adopt a once-in-always-in applicability policy: once a stationary source emits above the threshold, that source is subject to the CTG RACT requirement regardless of future emissions.

DAQ recognizes that permit applicability reflects maximum operational capacity, and that sources often emit well below an emissions unit’s PTE; applying CTG RACT requirements to such sources may raise concerns over the cost-effectiveness of emissions controls. An actual-based approach is reasonable from a cost-effectiveness perspective, but DAQ disfavors the increased enforcement burden that accompanies the potential change in affected sources each year and the discouragement of pollution prevention innovations that accompanies a once-in-always-in approach.

To reconcile the advantages and disadvantages of the actual- and PTE-based approaches and ensure consistency with other codified CTG RACT rules, DAQ opted to base the applicability of AQR 108 on “projected maximum emissions.” Under this approach, potentially affected sources must estimate the highest level at which an operation will emit VOCs in a future year. To develop this estimate, DAQ recommends that stationary sources look at previous demand and market projections to reasonably estimate what the stationary source will emit in the foreseeable future. Recordkeeping requirements ensure that throughputs are documented, and compliance officers can verify whether sources operate within their projections.

This value could approximate PTE for sources operating at or near capacity, but will likely be lower than PTE for sources operating below maximum capacity. DAQ believes that using projected maximum emissions will ensure that CTG RACT requirements are applied cost-effectively to sources anticipating emissions that exceed EPA’s general applicability threshold.

DAQ believes this approach maximizes incentives to reduce emissions. It also ensures that CTG RACT is implemented in a cost-effective manner while maintaining a system as stringent in practice as a purely actuals- or PTE-based approach.

Exemptions

AQR 108 does not apply to sources using less than 500 gallons (1,892 L) of coatings per year per operation. 500 gallons per year of material (using a conservative value of 10 lb of VOC per gallon) equals 2.5 tpy of VOC emissions, well below the trigger of 3 tpy. (A throughput-based exemption threshold simplifies the determination analysis required from small businesses.) AQR 108 also does not apply to coatings applied to test panels or coupons, to packaging used exclusively for food or healthcare products, or to materials used solely for research, development, quality control, or performance evaluation. The rule includes an exemption for operations that are controlled by RACT emissions standard(s) at least as stringent as it is. Work practices requirements, along with related employee training and recordkeeping tasks, do not apply to stationary sources using only aerosol products in their operations. Individual paper, film, or foil coating operations with an uncontrolled PTE of VOCs equal to or less than 25 tpy are also exempt from emissions standards.

Emissions Standards

The relevant emissions standards apply to fabric and vinyl coating operations with PME of VOCs equal to or greater than 3.0 tons per calendar year and to paper, film, or foil coating operations with an uncontrolled VOC PTE greater than 25 tpy. The standards must be met either by using compliant low-VOC coatings or by operating an emissions control system (ECS) that achieves a minimum overall control efficiency of 90%. Coating VOC content limits are specified in the rule by coating category and reflect EPA’s presumptive RACT requirements.

Work Practices Requirements

The rule establishes detailed work practices requirements for the storage, handling, , and disposal of VOC-containing materials to minimize emissions. These practices include container labeling, leak repair, secure storage, spill prevention and cleanup, closed-container requirements for rags and wipes, and practices to reduce emissions during equipment cleaning.

DAQ developed this standard set of work practices requirements, included in other CTG RACT rules, based on recommendations in various CTGs. DAQ makes minor adjustments to the standard set of requirements as appropriate for the specific application and includes operator training and periodic inspection requirements to ensure compliance.

In most cases, EPA's CTG RACT presumption includes only a recommendation for a level of emissions reductions. The CTGs do not include requirements for monitoring, recordkeeping, or reporting to ensure compliance with the emissions reduction recommendations; state and local air pollution control agencies add these requirements to ensure enforceability and enhance rule effectiveness. With respect to work practices requirements, DAQ believes that operator training combined with periodic inspections is the most reasonable, cost-effective means for assuring that stationary sources comply.

Compliance Obligations

Owners and operators must identify all VOC-containing coating materials, conduct periodic inspections, and provide training to newly hired workers on work practices requirements.

Owners or operators using an ECS to comply with the emission standards must develop and implement an operations and maintenance plan. This plan must identify key operating parameters, monitoring and inspection schedules, recordkeeping procedures, and provisions for minimizing emissions during startup, shutdown, and malfunction events. ECS performance must be supported by manufacturer's specifications or performance testing conducted using EPA-approved test methods; monitoring equipment must be installed, operated, and maintained in accordance with the approved plan.

Registration and Permitting Requirements

AQR 108 requires owners or operators to submit a registration to the Control Officer either within 180 days after the rule effective date or 45 days after becoming subject to any requirements. An updated registration is required within 60 days after a material change.

In lieu of meeting the registration requirements, a stationary source that is regulated by a minor source permit, an authority to construct permit, or a Part 70 operating permit must apply for a permit revision to incorporate applicable CTG RACT requirements in accordance with the requirements in AQRs 12.1, 12.4, and 12.5.

Notification

AQR 108 requires owners or operators using an ECS to conduct a performance test and notify the Control Officer. Owners or operators relying on exemptions for operations controlled by other RACT emissions standard(s) at least as stringent as AQR 108 must notify the Control Officer.

Recordkeeping

AQR 108 requires an owner or operator to generate and maintain documentation to demonstrate compliance with the rule. For example, owners or operators are required to calculate and document (e.g., in a log report) monthly and annual use of a material and translate that use into tons per year

of VOC emissions. Owners or operators may acquire and maintain vendor-provided data and calculations to satisfy these requirements.

Reporting

AQR 108 requires owners or operators with a PME of VOCs equal to or greater than 3.0 tpy to submit annual VOC emissions inventories to the department on or before March 31 of each year.

Compliance Dates

Compliance dates are structured to provide phased implementation, with different compliance dates for new and existing sources. New sources must comply upon commencing normal operations. Existing sources must comply no later than 180 days from the effective date of the regulation or the date that the source first becomes subject to the rule, whichever is later. If an existing source is using a low-VOC material to comply, the regulations provide up to one year for an owner or operator to use material in its existing inventory, but new, noncompliant material cannot be purchased after the applicable compliance date in the rule unless the source is controlling emissions from those products with an ECS. For existing sources that must design, purchase, and install air pollution control equipment, the regulation allows up to 540 days to comply.

DAQ believes these compliance dates are reasonable and should be achievable for most affected sources, but recognizes that special circumstances (e.g., supplier shortages, worker shortages) may make meeting these compliance dates infeasible. When an existing stationary source explains and documents why it cannot achieve compliance by the applicable date and commits to an alternative date that achieves compliance as expeditiously as practicable, the compliance date may be extended by up to 3 years from the effective date of the regulation through application and issuance of a revised stationary source permit. However, DAQ expects such requests to be rare.

Public Workshop and Participation

DAQ hosted a public workshop on November 20, 2025, for the creation of AQR 108.

DAQ conducted a 14-day public comment period (1/23 to 2/6/2026) and did not receive any comments. DAQ also published a notice of public hearing in the *Las Vegas Review-Journal* and made drafts of AQR 108 available for review, both online and at its offices, from March 9, 2026, to April 9, 2026. Staff has scheduled a public hearing before the Clark County Board of County Commissioners for June 2, 2026.