

Executive Summary

Proposed Rulemaking for VOC RACT Requirements for Shipbuilding and Ship Repair Surface Coating Operations, Synthetic Organic Chemical Manufacturing Industry Processes and Large Petroleum Dry Cleaners for the 2015 Ozone NAAQS 25 Pa. Code Chapters 121 and 129

Purpose and Summary of the Proposed Rulemaking

The Environmental Quality Board (Board) proposes to amend Chapters 121 and 129 (relating to general provisions; and standards for sources) to establish presumptive volatile organic compound (VOC) reasonably available control technology (RACT) requirements and RACT emission limitations for the following control techniques guidelines (CTG) source categories: shipbuilding and ship repair surface coating operations; synthetic organic chemical manufacturing industry (SOCMI) air oxidation, distillation and reactor processes; and large petroleum dry cleaners. This proposed rulemaking would add definitions to § 121.1 (relating to definitions) and add shipbuilding and ship repair surface coating operations to § 129.52 (relating to surface coating processes). This proposed rulemaking would also add §§ 129.63b and 129.71a to implement the control of VOC emissions from large petroleum dry cleaners and from SOCMI oxidation, distillation and reactor processes.

The purpose of this proposed rulemaking is to implement measures to control VOC emissions in the Commonwealth from shipbuilding and ship repair facilities with surface coating operations, large petroleum dry cleaning facilities and SOCMI air oxidation, distillation, and reactor processes. VOC emissions are precursors to ground-level ozone formation. Ground-level ozone, a public health and welfare hazard, is not emitted directly to the atmosphere by these processes, but forms from the photochemical reaction between emissions of VOCs and oxides of nitrogen (NO_x) in the presence of sunlight.

The EPA is responsible for establishing National Ambient Air Quality Standards (NAAQS), or maximum allowable concentrations in the ambient air, for certain “criteria” pollutants considered harmful to public health and the environment, including ground-level ozone. Under the federal Clean Air Act (CAA), states have the primary responsibility for achieving the NAAQS by adopting and submitting to the EPA a State Implementation Plan (SIP) to implement measures to enforce the NAAQS.

One of the measures used under the CAA to help states achieve and maintain the NAAQS includes the implementation of RACT for a source or group of sources. The CAA requires states with ozone nonattainment areas, that are located in the Ozone Transport Region, or both, to develop and implement RACT regulations based upon EPA’s CTG recommendations for specific source categories. The Department of Environmental Protection (Department) has developed the proposed rulemaking to meet the RACT requirements under sections 172, 182 and 184 of the CAA (42 U.S.C.A. §§ 7502, 7511a and 7511c). The Department’s failure to adopt the proposed rulemaking would prevent “certification” of CTG RACT for the 2015 ozone NAAQS. That failure could eventually result in a federally imposed sanctions clock, sanctions, and finally to EPA’s issuance of a Federal Implementation Plan.

The EPA has developed CTGs pertaining to the three source categories that are subject to this rulemaking. This proposed rulemaking is consistent with the EPA's CTG RACT recommendations for these three source categories.

This proposed rulemaking would amend § 129.52(a) to establish that this section applies to a shipbuilding or ship repair facility with a surface coating operation that uses or applies more than 264 gallons of one or a combination of coatings listed in Table I, category 12. The proposed rulemaking would also amend § 129.52(c)(1) to require covered facilities to maintain daily records of volume percent of solids for a Table I surface coating process category 12 coating whose VOC content is expressed in units of weight of VOC per volume of coating solids. The proposed rulemaking would amend Table I to add compliance requirements and emission limits for the VOC content of surface coatings used at shipbuilding or ship repair coating operations.

This proposed rulemaking would establish applicability requirements for large petroleum dry cleaners, definitions for terms used in this section, VOC emission limitations, compliance monitoring and testing requirements, recordkeeping and reporting requirements, and exemptions. The owners and operators of petroleum dry cleaners with an emissions limit below the proposed threshold would only be subject to recordkeeping requirements, which is already an existing obligation for those facilities.

This proposed rulemaking would establish applicability requirements for a SOCOMI facility and to establish the standards for process vents, air oxidation unit processes, distillation operations and reactor processes. This proposed section would also provide a list of regulated SOCOMI chemicals.

Consistent with Section 4.2(a) of the Pennsylvania Air Pollution Control Act, 35 P.S. § 4004.2(a), the VOC emission control measures set forth in the proposed rulemaking are reasonably required to achieve and maintain the health-based and welfare-based 8-hour ground-level ozone NAAQS and to satisfy related CAA requirements in this Commonwealth. The proposed rulemaking, if published as a final-form regulation in the *Pennsylvania Bulletin*, will be submitted to the EPA for approval as a revision to the Commonwealth's SIP.

Affected Parties

This proposed rulemaking would apply to the owners and operators of the following: (1) a shipbuilding and ship repair surface coating operation; (2) a SOCOMI air oxidation, distillation or reactor process; and (3) a large petroleum dry cleaning facility.

There are three known shipbuilding and ship repair facilities with surface coating operations in the Commonwealth. Two of the facilities would be subject to this proposed rulemaking. These two facilities already meet the proposed VOC RACT requirements through existing operating permit conditions. The other facility in the City of Philadelphia is operating under a City of Philadelphia Air Management Services regulation, which has already been approved as a revision to the Commonwealth's SIP.

The owners and operators of the affected SOCOMI facilities in this Commonwealth meet the applicable new source performance standard (NSPS) requirements at 40 CFR Part 60, Subparts

III, NNN and RRR. NSPS requirements provide equivalent control measures for SOCOMI CTG affected sources or alternatively these sources have operating permit conditions that are already federally approved for purposes of meeting the CTG RACT recommendations. The Department is not aware of a facility owner or operator that would be affected by the VOC RACT requirements for shipbuilding and ship repair surface coating operations or SOCOMI processes in this proposed rulemaking. These obligations are consistent with the owners and operators' current obligations under their existing permits.

The owner and operator of a petroleum dry cleaning facility using 123,000 liters (32,493 gallons) or more of petroleum solvent annually would be subject to the petroleum dry cleaning VOC RACT requirements in this proposed rulemaking. There are no known facilities in Pennsylvania that use 32,493 gallons or more of petroleum solvent annually. While this proposed rulemaking would not impact the owners and operators of small petroleum dry cleaning facilities, these owners and operators would benefit because these facilities operate below the applicability limit in the proposed rulemaking. Small dry cleaning facilities fall within the CTG source category for petroleum drycleaners. Without a federally enforceable regulation to establish emission limits to provide the units with a RACT exemption threshold, these small units have no way to demonstrate their CTG RACT exempt status except to have select permit conditions submitted as SIP revisions. Small petroleum dry cleaning facilities would benefit as they would not be required to have their individual permitting conditions submitted to EPA so that the Commonwealth can meet its SIP obligations. This would also enable the Commonwealth to more efficiently modify the facilities' permits as changes are needed without having to submit a revision to the Commonwealth's SIP. The proposed rulemaking would only subject the owners and operators of petroleum dry cleaning facilities below the applicability threshold limit to keep and maintain records. These owners and operators will not be affected beyond their current obligations in operating permits, general permits, or existing NSPS requirements.

Advisory Groups

The Department consulted with the Air Quality Technical Advisory Committee (AQTAC) and the Small Business Compliance Advisory Committee (SBCAC) on this proposed rulemaking on October 15, 2020, and October 28, 2020, respectively. Other than two abstentions in the AQTAC vote, both committees voted unanimously to concur with the Department's recommendation to move this proposed rulemaking forward to the Board for consideration. In addition, this proposed rulemaking was discussed with the Citizens Advisory Council (CAC) Policy and Regulatory Oversight Committee (PRO) on November 9, 2020. On the recommendation of the PRO Committee, on November 17, 2020, the CAC concurred with the Department's recommendation to move this proposed rulemaking forward to the Board.

Public Comments and Board Hearings

The Department recommends that the Board adopt this proposed rulemaking. The Department also recommends a 60-day public comment period for this proposed rulemaking and an opportunity for three public hearings.