EXECUTIVE SUMMARY

Control of VOC Emissions from Gasoline Dispensing Facilities (Stage I and Stage II) 25 Pa. Code Chapters 121 and 129

Purpose and Summary of the Final-Form Rulemaking

The Department of Environmental Protection (Department) finalized amendments to Chapters 121 (General Provisions) and 129 (Standards for Sources) for consideration by the Environmental Quality Board (Board). This final-form rulemaking amends air quality regulations relating to control of volatile organic compound (VOC) emissions during loading of underground gasoline storage tanks ("Stage I" vapor recovery), during filling of motor vehicles at the pump ("Stage II" vapor recovery) and during and after decommissioning of Stage II vapor recovery equipment from gasoline dispensing pumps. This final-form rulemaking adds and amends definitions relating to Stage I and Stage II vapor recovery systems to support amendments to Chapter 129. This final-form rulemaking amends sections 121.1, 129.61 and 129.82 (relating to definitions; small gasoline storage tank control (Stage I control), and control of VOCs from gasoline dispensing facilities (Stage II)); and adds sections 129.61a and 129.82a (relating to vapor leak monitoring procedures and other requirements for small gasoline storage tank emission control and requirements to decommission a Stage II vapor recovery system).

This final-form rulemaking:

- Allows owners and operators of gasoline dispensing facilities (GDFs) to remove or decommission all Stage II vapor recovery equipment and requires the removal or decommissioning of a certain type of Stage II equipment. Decommissioning Stage II vapor recovery equipment will eliminate incompatibility with onboard refueling vapor recovery systems and reduce emissions.
- Establishes a compliance date of December 31, 2022, for the removal or decommissioning of one type of Stage II vapor recovery equipment, vacuum assist vapor recovery equipment.
- Retains the requirement to perform two types of annual vapor leak tests.
- Adds the performance of two additional types of annual leak tests as a requirement.
- Requires the installation of low permeation hoses and enhanced conventional nozzles.
- Allows the option for owners and operators to forego annual testing by installing a continuous pressure monitor.
- Revises the recordkeeping and reporting requirements for affected owners and operators of the GDFs.

The Commonwealth has relied upon emission reductions of VOCs at GDFs to help achieve its clean air goals. For example, the Department used the emission reductions achieved from the Stage II regulations to help demonstrate attainment and maintenance with the National Ambient Air Quality Standards (NAAQS) for ozone. These emission reductions are incorporated into the Commonwealth's State Implementation Plan (SIP) for the 12 counties in the Philadelphia and Pittsburgh areas. The 5-county Philadelphia and 7-county Pittsburgh areas are the most challenging areas in this Commonwealth to bring into attainment of, and to maintain, the

NAAQS for ground-level ozone. This final-form rulemaking meets a compelling public interest in reducing and avoiding the release of harmful air pollutants that Stage I and Stage II vapor recovery systems were designed to prevent. Stage II vapor recovery controls went into effect in the 12 counties because these areas were originally designated as moderate nonattainment areas or above for the ozone NAAQS. Ambient ozone concentrations in these areas either exceed or remain close to the current ozone NAAQS. The Commonwealth is allowing decommissioning of Stage II vapor recovery systems to eliminate excess emissions caused by incompatibility between the vehicle's onboard refueling vapor recovery system and the Stage II vapor recovery equipment. Another emission benefit will occur by requiring annual leak testing instead of relying on federal leak testing requirements which require triennial leak testing. By far, the largest emission reductions due to this final-form rulemaking will occur by retaining annual vapor leak testing requirements pertaining to the Stage II program. This will help lower monitored concentrations of ozone in the two areas below the existing standard and potentially below any updated ozone standard. The requirements in this final-form rulemaking are similar to Stage II vapor recovery requirements in surrounding Ozone Transport Region (OTR) states. These neighboring OTR states have likewise kept certain Stage II vapor recovery requirements in areas with the highest ambient ozone concentrations.

The benefits of Stage II requirements extend beyond just reducing emissions when motorists fill their gas tanks. Stage II testing requirements also reduce emissions of the Stage I system that may occur when the underground storage tank (UST) is filled, from tank breathing emissions (these are emissions that occur when air is ingested and expelled from the UST) that occur throughout the day and from emissions that occur from spills. This final-form rulemaking ensures that no backsliding will occur in VOC emission reductions. VOC emission reductions that are achieved following the implementation of this final-form rulemaking will allow the Commonwealth to make progress in attaining and maintaining the 2008 and 2015 8-hour ozone NAAQS.

This final-form rulemaking contains additional protections because the Department does not believe that the United States Environmental Protection Agency (EPA) accounted for all excess emissions that could occur from decommissioning a Stage II vapor recovery system. Decommissioning Stage II without preserving effective pollution control elements of the program will likely lead to degradation of air quality. In this final-form rulemaking, the Board incorporates requirements to preserve some vapor leak monitoring and testing and requires new types of low permeation hoses and enhanced conventional (ECO) nozzles to control emissions from evaporation and spills while allowing GDFs to remove Stage II vapor recovery equipment.

Affected Parties

This final-form rulemaking applies to owners and operators of GDFs statewide that operate Stage I or Stage II vapor recovery systems at GDFs. Potential entity types affected by the final-form rulemaking include airport/aviation companies, cemeteries, vehicle fleets, retail gas stations, governments, rental agencies, service stations and fuel terminal operators. Companies that test, repair and install Stage I and Stage II vapor recovery equipment will also be affected.

The Department estimates from the 2012 GDF survey that 1,981 locations in the 5-county Philadelphia and 7-county Pittsburgh areas, combined, will be required to comply with this final-form rulemaking. The 5-county Philadelphia area is home to 1,118 locations and the 7-county Pittsburgh area is home to 863 locations. Approximately 2,906 GDFs are in the 5-county Philadelphia and 7-county Pittsburgh areas; however, only facilities that have a throughput over 120,000 gallons of gasoline per year are subject to this final-form rulemaking. Large companies own and operate GDFs at many locations, and as such, the number of businesses affected is much lower than the number of locations. Approximately 538 and 368 businesses in the 5-county Philadelphia and 7-county Pittsburgh areas, respectively, are subject to this final-form rulemaking.

Advisory Groups

The Department presented the final-form Annex A to the Air Quality Technical Advisory Committee (AQTAC) on April 8, 2021, and to the Small Business Compliance Advisory Committee (SBCAC) on May 19, 2021, and briefed the committees on the comments received on the final-form rulemaking. The Department presented the draft final-form Annex A to the Citizens Advisory Council's (CAC) Policy and Regulatory Oversight Committee on June 1, 2021. On the recommendation of the Policy and Regulatory Oversight Committee, on June 15, 2021, the CAC recommended that this final-form rulemaking be submitted to the Board for consideration. Advisory committee meetings are advertised and open to the public.

Public Comments and Board Hearings

The Board adopted the proposed rulemaking at its meeting on May 19, 2020, which was published in the *Pennsylvania Bulletin* on September 26, 2020, with a 66-day public comment period (50 Pa.B. 5236). In accordance with the Governor's emergency disaster declaration and based on advice from the Pennsylvania Department of Health regarding the mitigation of the spread of novel Coronavirus (COVID-19), the Department held three virtual public hearings for the proposed rulemaking on October 27, 28, and 29, 2020. Public comments were received on the proposed rulemaking from 5 public commentators. No written comments were received from the Senate or House Environmental Resources and Energy Committees. On December 30, 2020, the Independent Regulatory Review Commission (IRRC) submitted comments.

Public comments received from small and large businesses and an association were either supportive of the proposed rulemaking or asked the Board to make changes to specific provisions of the proposed rulemaking. One trade association expressed support and indicated that the proposed rulemaking would contribute to cost savings. One public commentator and IRRC commented that the timeline to begin leak testing needs to be better described in the proposed rulemaking. One commentator and IRRC commented that the final-form rulemaking should allow records to be electronically stored at gasoline dispensing facilities for inspection. IRRC commented that the Board needed to describe how to notify small businesses that are difficult to identify of testing certification requirements. One commentator stated that the Board should incorporate the 40 CFR Part 63, Subpart CCCCCC leak testing requirements for gasoline dispensing facilities in other areas of the Commonwealth into the final-form rulemaking. This requirement is already being enforced by EPA and is outside the intended scope of the proposed

rulemaking. One commentator suggested allowing only individuals obtaining a level of certification of either UTT (underground storage tank system tightness tester), UMX (underground storage tank system major modification), UMI (underground storage tank system minor modification), or IUM (inspection of underground storage tank system and facilities) from the Department's Storage Tank Program to qualify to perform leak testing.

Two commentators expressed concerns that motorists may have difficulty operating ECO nozzles and that they cost more than other types of gasoline nozzles. One commentator stated that their company locations are reporting fewer minor drips and spills since converting to the ECO nozzles and another commentator stated that while some of their customers have had difficulty operating the ECO nozzles, the difficulty can be overcome with a little help from attendants.

In response to the comments, the Board made two changes to clarify requirements in the final-form rulemaking. The Board amended § 129.61a(d)(1) to add subparagraph (v), which clarifies when existing and new leak testing is required to be conducted. New subparagraph (v) specifies that the following test procedures, CARB TP-201.1E, TP-201.3, TP-201.3C and TP-201.1B, will be required to be performed within one year of the effective date of the final-form rulemaking and annually thereafter. The Board also amended § 129.61a(d)(1), (f)(3), (h)(10), (l)(3), (m)(1), (n), (o) and (p), § 129.82(b)(6), and § 129.82a(d)(5) to allow the owner or operator of a gasoline dispensing facility to store records electronically to demonstrate compliance during an inspection.

In response to other comments, the Board will not require any of the certifications for vapor leak testers because none of the suggested certifications apply to vapor leak testers. The UTT certification for Underground Tightness Testers is a certification for liquid leak testers and is not suitable for vapor leak testers for several reasons. The Department explained in the comment and response document how it will conduct outreach to the regulated community to inform them of the requirements in the final-form rulemaking. As a point of clarification, leak testers will not require certification as was erroneously stated in the Regulatory Analysis Form for the proposed rulemaking. The Department will contact small businesses that perform work on USTs about the new requirements by placing a notice on DEP's public website; notifying all individuals who are registered in the Storage Tanks Program with an existing certification category of UTT, UMI or UMX; distributing a notice with trade organizations; and by contacting gasoline dispensing facilities in the 12 counties.

In response to the comments about ECO nozzles, the Department explained that the nozzles are a cost-effective control measure, and consumers in other states have learned how to operate these nozzles. Concerning ECO nozzles getting stuck in vehicles, the Department responded that the problem only affects model year 2015 through 2019 Dodge Ram vehicles. There is a method to extract the nozzle that works in most instances. The Board will keep the requirement for owners and operators of gasoline dispensing facilities to install ECO nozzles. The Board agreed with one commentator who stated that there are fewer minor drips at locations where his company uses ECO nozzles. The Department notes that the CARB staff believes that ECO nozzles are working better than their current emission performance standard.

IRRC stated that the Board should address how the benefits of ECO nozzles outweigh the negative fiscal and environmental impacts. Another commentator stated that ECO nozzles could cause worse spills than conventional nozzles. The Board realizes that ECO nozzles will be more expensive than conventional nozzles, but the cost-effectiveness of requiring ECO nozzles is comparable to other VOC emission control measures. The cost-effectiveness of ECO nozzles controlling VOC air emissions is less than $4,500 per ton, and when the liquid portion of the spill is included (which is approximately 50% of all spills), the cost-effectiveness at reducing all gasoline spills from nozzles, which are released into both air and water, is less than $2,250 per ton.

Recommendation to the Board

The Department recommends the Board adopt this final-form rulemaking.