Proposed Rulemaking: Control of VOC Emissions
Amendments to the Requirements for the
Control of VOC Emissions from Gasoline Dispensing Facilities
(Stage I and Stage II)

Environmental Quality Board Meeting
May 19, 2020

Tom Wolf, Governor
Patrick McDonnell, Secretary
Stage II vapor recovery equipment is required at most gasoline dispensing facilities (GDFs) in the 5-county Philadelphia and 7-county Pittsburgh areas to control VOC emissions from refueling vehicles.

The Clean Air Act required that automobile manufacturers develop onboard refueling vapor recovery (ORVR) systems, which essentially act like a Stage II system on the vehicle.

ORVR systems were phased-in on gasoline vehicles starting in 1998. Today, over 90% of gasoline-powered highway vehicles in PA are equipped with ORVR systems.
An incompatibility exists between ORVR systems and the most prevalent type of Stage II system in Pennsylvania, vacuum-assist systems, which causes excess VOC emissions to be emitted during refueling.

VOC emissions from refueling will start to increase in the Pittsburgh area in 2021 and in the Philadelphia area in 2022.

Congress authorized EPA under § 202(a)(6) of the Clean Air Act to waive Stage II vapor recovery requirements upon determining that ORVR systems are in widespread use.
Background: Stage II Vapor Recovery

- The EPA Administrator issued a determination that ORVR was in widespread use nationwide on May 16, 2012.
- EPA issued guidance to states that addressed how states can allow decommissioning of Stage II without causing backsliding on their state implementation plan commitments.
- EPA’s guidance did not take all factors affecting emissions into account.
- EPA did not examine leaks and spills that would go undetected after removing Stage II program requirements for testing and equipment.
Absent a Stage II Program, GDFs would be regulated under the Federal NESHAP Program, Subpart CCCCCC.

Under the NESHAP, only GDFs with an average throughput over 100,000 gallons a month would be required to test for leaks - covering only 70% of all gasoline dispensed at GDFs.

Enhanced conventional nozzles and low permeation hoses would not be required.

The leak and pressure/vacuum vent valve tests for NESHAP would be required every 3 years versus 1 year for the proposed rulemaking.

GDFs with throughputs under 100,000 gallons a month would be required to perform best practices but not leak testing.
New 25 Pa. Code § 129.61a would apply to GDF owners and operators in the 5-county Philadelphia and 7-county Pittsburgh areas and would:

- Affect GDFs with once-triggered annual throughput over 120,000 gallons (covering 98% of all gasoline throughput).
- Require annual leak test, pressure/vacuum vent valve test, rotatable adapter test, and a tie-tank test. If leak test fails, once every 6-month leak testing would be required.
- Allow installation of a continuous leak monitoring system for a GDF to forego annual testing.
- Require enhanced conventional hoses and nozzles.
New § 129.82a would apply to a GDF owner or operator that uses, has decommissioned or is decommissioning a Stage II system. This section would require decommissioning of Stage II vacuum assist systems by December 31, 2022 and would:

– Specify correct procedure to decommission Stage II systems.
– Require that DEP is notified when a GDF system is decommissioned.
– Relieve GDF owners or operators from requirement to install Stage II systems.
– Allow GDF owners and operators to keep and operate existing vapor balance Stage II systems.
This proposed rulemaking would also:

• Clarify § 129.61.
• Update § 129.82 to remove requirement to install a Stage II system to codify test procedures for existing Stage II systems.
• Specify best practices that must be completed.
• Specify recordkeeping requirements.
• Require the person making corrections or repairs, which includes decommissioning, to be appropriately certified under Title 25, Chapter 245, Storage Tank and Spill Prevention Program.
Applicability

- The proposed rulemaking would be applicable to a GDF owner or operator:
  - of a gasoline storage tank with a capacity greater than 2,000 gallons;
  - that operates a GDF that either had a monthly throughput over 10,000 gallons month averaged over a year or the owner or operator is a small business marketer of gasoline that has had a throughput of at least 50,000 gallons a month averaged over a year.

- DEP estimates that approximately 1,981 GDFs would be affected by this proposed rulemaking.
• Owners and operators of GDFs would save over $5 million a year for Stage II repairs after decommissioning.

• The cost of decommissioning, which would cost owners of affected GDFs over $10 million, would be offset in about 2 years by Stage II repair savings.

• Total additional cost for testing and repair over NESHAP requirements would be about $2.2 million annually.

• Fuel savings from leak testing would be about $1.7 million annually.
• GDF owners and operators would need to perform mostly the same tasks as they perform now.

• Additional tasks include:
  – An annual static torque test at GDFs equipped with a rotatable adapter.
  – An annual tie tank test.
  – Decommissioning of Stage II systems notification to appropriate state or local regulating agency.

• Option for GDF owners to install continuous pressure monitors.
Environmental Impact

• The proposed rulemaking would achieve VOC emission reductions between 900 and 2,100 tons a year over what is achievable by the NESHAP.

• The proposed rulemaking would avoid excess toxic emissions in densely populated urban areas.

• Enhanced hoses and nozzles would limit emissions and surface and ground water contamination.
The following committees concurred with the Department’s recommendation to move the proposed rulemaking to the EQB for consideration:

- Air Quality Technical Advisory Committee (AQTAC) – April 11, 2019.
- Small Business Compliance Advisory Committee (SBCAC) – April 24, 2019.
The Department is recommending the adoption of this proposed rulemaking.

The Department recommends a 60+ day public comments period with public hearings held during the comment period.

If adopted as a final-form rulemaking, revisions to the SIP will be submitted to the EPA.
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