

Delaware Regulations for Vapor Emission Controls at Gasoline Dispensing Facilities (GDFs)

**Review Committee Meeting #5
June 25, 2014**

**Division of Air Quality
DNREC**



Agenda

1. ***Review: Fast Tracking Action on New GDFs***
2. ***Continuous Pressure Monitoring System (CPM) Presentation (By Veeder-Root)***
3. ***DAQ Draft Requirements for New and Reconstructed GDFs***
 - ***Overview***
 - ***Section-by-section discussion***
4. ***Path Forward***
5. ***Next Meeting***

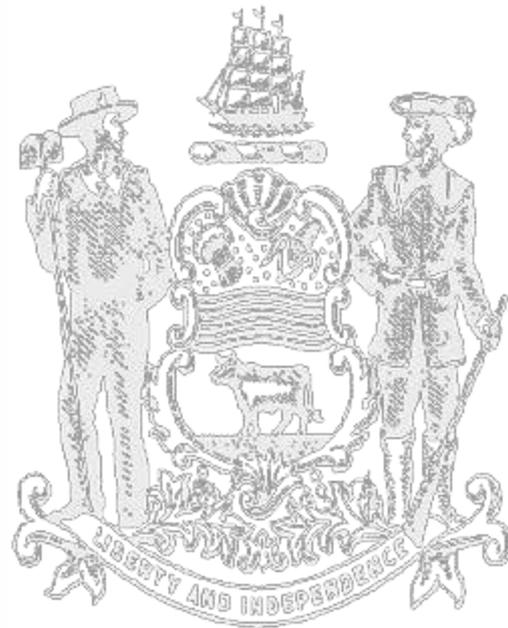


1. Review: Fast Tracking Action on New GDFs

- In Committee Meeting #4 (April 9), we discussed our plan for taking a fast tracking action on New GDFs to meet industry's need;***
- DAQ decided to cover both new and reconstructed GDFs;***
- Definitions of “New” and “Reconstructed” GDFs to be discussed later.***



2. Continuous Pressure Monitoring (CPM) System Presentation By Veeder-Root



1. *Draft Requirements for New or Reconstructed GDFs*

Overview:

- 1) Stage II vapor recovery not required at new/reconstructed GDFs.
 - Requiring both “compatible” Stage II and UST controls is not consistent with our goal of not increasing costs over current levels.
 - Increase in vehicle side refueling emissions over the current regulation will always exist, but will decrease with time.
 - 7.8 lbs for every 1000 gallons of gasoline pumped
 - 73% of DE registered vehicles were equipped with ORVR in 2013 -- increasing to 91% by 2020.



1. *Draft Requirements for New or Reconstructed GDFs*

Overview (continued):

2) Addresses tank side vapor leakage.

- Requires use of Stage I EVR components, and sets an allowable leak rate.
- Tank emissions controlled with a p/v valve, but to be effective the tank system must not leak. Data indicates that 70% of DE stations leak at time of annual pressure decay testing. Similar to data from other states.
- Will decrease tank system emissions from current level by 1 lb for every 1000 gallons pumped.



1. *Draft Requirements for New or Reconstructed GDFs*

Overview (continued):

3) Requires necessary monitoring, recordkeeping and reporting

- Compliance with leak rate based on use of one of the continuous pressure monitoring (CPM) systems that have been used in California since 2002.
- CPM system that includes 1) a console with leak detection software, 2) a vapor pressure sensor, and 3) an automatic tank gauge.
- Entire CPM system less than \$8,000 – software and pressure sensor are only additional components needed for new stations.



1. *Draft Requirements for New or Reconstructed GDFs*

Overview (continued):

- 4) Requires additional emissions control at GDFs that demonstrate high emission rates.
- Analysis to determine if the p/v valve fails to be adequate to contain tank emissions at least 95% of the time on a weekly basis.
 - Control options include installing a higher crack point p/v valve, a pressure management system, or any other system approved by DNREC and the EPA.
 - Cost of pressure management systems between \$8,000 and \$40,000.



36.1 *Applicability.*

- Any new or reconstructed GDF will not be subject to Stage II Vapor Recovery System requirements.
- Instead, the new GDF will be subject to Stage I EVR component and allowable leak rate requirements.



36.2 Definitions.

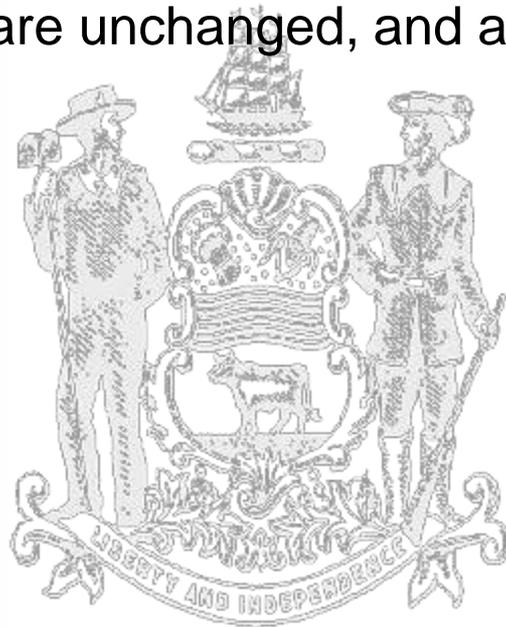
New definitions added:

- New Facility
- Reconstructed Facility
- P/V Valve
- Tank System
- Ullage



36.3 *Standards for Facilities with Stage II Vapor Recovery Systems.*

These requirements are unchanged, and apply only to existing GDFs.



36.4 *Standards for Facilities Without Stage II Vapor Recovery Systems.*

- Seventeen (17) required Stage I EVR components.
- Maintain a leak rate less than two times the rate allowed by the “2 inch test” assessed on a weekly basis.
- Maintain tank system pressure below the positive cracking pressure of the p/v valve at least 95% of the time on a weekly basis.
- Also, posting, training/routine inspecting requirements substantially carried over from Stage II requirements.



36.5 *Monitoring Requirements and Corrective Actions.*

- Continuous pressure monitoring (CPM) system that includes 1) a console with leak detection software, 2) a vapor pressure sensor, and 3) an automatic tank gauge.
 - Operate a minimum of 95% of the time per month.
 - Assess the rate of vapor leakage from the tank system at any working ullage pressure, both positive and negative.
 - CPM system shall assess, on a weekly basis, the tank system leak rate, and the percentage of time the tank pressure equals the cracking pressure of the p/v valve.



36.5 Monitoring Requirements and Corrective Actions (continued).

- Two attempts to fix leaks at weekly intervals.
 - First by owner or operator
 - Second by certified testing company
- Excess leak rate or p/v valve cracking (i.e., more than 8.4 hours per week) requires resolution plan, which may be based on installation of a higher crack point p/v valve, a pressure management system, or DE and EPA approved alternative.



36.6 *Testing Requirements.*

Annual testing requirements do not apply to new and reconstructed GDFs without Stage II systems.

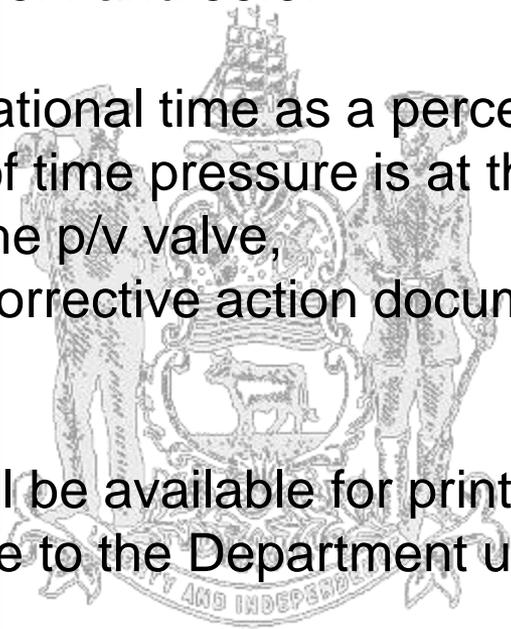
One-time start-up tests apply to new and reconstructed GDFs without Stage II systems.

Annual testing requirements remain for existing GDFs with Stage II systems.



36.7 *Recordkeeping and Reporting.*

- The CPM system will generate daily and monthly reports with data necessary to determine compliance with requirements of 36.4 and 36.5.
 - System operational time as a percentage.
 - Percentage of time pressure is at the positive cracking pressure of the p/v valve,
 - Failure and corrective action documentation.
 - Etc.
- CPM reports shall be available for printing at the facility, and be made available to the Department upon request.



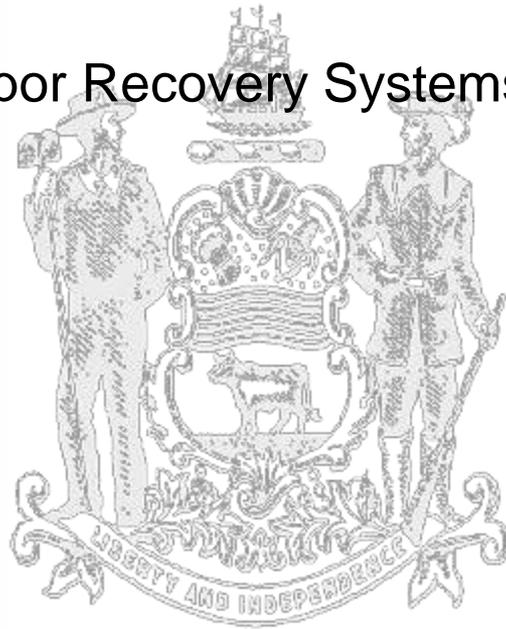
36.8 Compliance Testing Company Requirements.

These requirements now also apply to persons that repair CPM identified failures.



36.9 *Approved Systems*

Approved Stage I Vapor Recovery Systems for new GDFs added.



1. *Draft Requirements for New or Reconstructed GDFs*

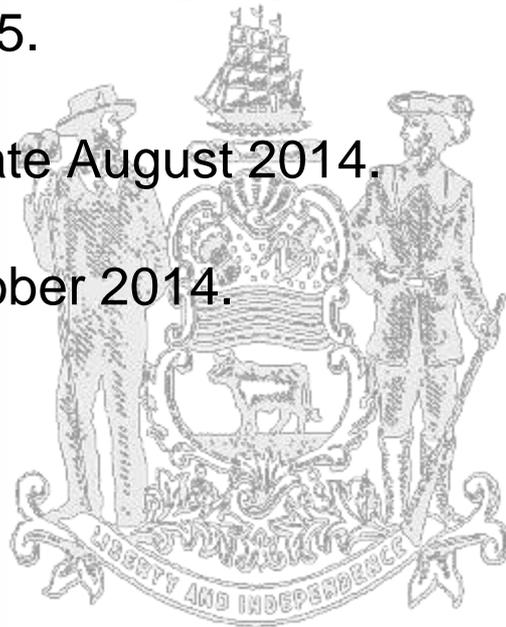
Draft regulation meets the goals set at the first stakeholder meeting:

1. All GDFs to be well-controlled
 - the vehicle side by ORVR
 - the UST side by being leak tight
2. Provide flexibility to facilities in meeting control strategy
 - Sets standard and monitoring
 - Additional control required only when needed
3. Do not increase overall costs compared to current Stage I and Stage II program.
 - Reduces cost over current requirements by more than 2/3rds.



2. Path Forward

- Revise draft regulatory language to create proposed regulatory language by July 15.
- Public hearing in late August 2014.
- Effective date October 2014.



3. *Next Meeting*

1. Continue discussion of existing facilities
 - Regulating allowable leak rate for existing stations seems reasonable.
 - Ensure decommissioning does not occur too fast -- Stage II benefit about 0.80 tpd in 2013, decreasing to 0.24 tpd in 2020.
 - Stage II Decommissioning procedures need to be finalized.
2. Meeting Date: August ?
3. Location: Lukens Drive

Thanks

