

DE GDFs Vapor Control Regulation Revision 2013-14

Dear review committee members: Please consider the following questions. Thanks!

[DAQ's summary of replies received as of 09/23/2013]

Your organization: 4 GDF owners/operators: Wawa, Sunoco, SMO, Royal Farms,
2 testing Contractors: Crompco, UST Services

Q1) About your gasoline dispensing facilities (GDF) in Delaware:

Org.	Total GDFs	# 24/7	# Daytime	Throughput gal/mon
Wawa	23	23	0	300,000 to 850,000
Sunoco	10	10	0	59,000 to 790,000
SMO	49	35	14	N/A
Royal Farms	21	21	0	75,000 to 555,000
Crompco	N/A			
UST Services	N/A			

Q2) Do you currently periodically or continuously monitor tank pressure, either at a GDF in Delaware or elsewhere?

Wawa	7 GDFs with pressure control units to monitor tank pressure but not collect data from them.
Sunoco	Not currently, but did some monitoring studies in the past
SMO	Not monitor tank pressure.
Royal Farms	Not having equipment monitoring tank pressure.
Crompco	N/A
UST Services	N/A

Q3) Under a no-Stage 2 configuration, for tanks that are expected to remain under negative pressure (GDFs that operate 24/7) except during a product drop, how would you propose to verify that the pressure remains negative?

Wawa	A simple way is: removing fill cap of the tank and hear or feel the vacuum of the tank.
Sunoco	Relying on pressure vent cap to keep the tank within operation specs.
SMO	Annual testing of vent cap and pressure decay test of entire UST system.
Royal Farms	Periodic testing of P/V vent cap
Crompco	Not answered.
UST Services	Annual Stage I test, pressure decay and Pressure/Vacuum vent tests.

Q4) Under a no-Stage 2 configuration, for tanks that are not expected to remain under negative pressure due to vapor growth, how would you propose to verify vapor tightness of the tank, and control emissions from the vent should the pressure exceed the positive cracking point of the p/v valve?

Wawa	Not know of any inexpensive way.
Sunoco	Relying on pressure vent cap to keep the tank within operation specs.
SMO	Testing of UST and vent cap should verify proper operations.
Royal Farms	These emissions could be reduced in a no-Stage II configuration. Periodic pressure decay and P/V vent cap testing would verify vapor tightness.
Crompco	Periodic pressure decay & P/V valve testing per CARB TP 201.3/CARB TP 201.1E
UST Services	Annual Stage I test, pressure decay and P/V vent tests, would minimize vapor emission due to positive pressure.

Q5) At the first review committee meeting, there was a discussion about decommissioning Stage 2 during reconstruction of a GDF.

- How do you define “reconstruction”?

Wawa	Replacement of all gas dispensers
Sunoco	Performing tank/piping work
SMO	Replacement or upgrade of the entire tank top or product piping replacement or replacing the dispensers, and total UST system replacement
Royal Farms	Replacing >50% of piping, tank top upgrade, dispenser replacement, and fuel system (UST) replacement
Crompco	Replacing 50% piping below the shear valve, installing new dispensers, replacing tanks/tank top upgrade
UST Services	Replacing dispensers, installing sumps, tank top upgrade, piping replacement

	<u>% GDFs reconstructed each year</u>	<u># reconstructions in next 2 years</u>
Wawa	5%	6
Sunoco	Varies	0 in DE
SMO	15%	4~5
Royal Farms	10%	4
Crompco	N/A	
UST Services	N/A	

Q6) What equipment components, either associated with the tank or the dispenser/hanging hardware, are changed out at times other than reconstruction, and what is the typical equipment life span of these components?

Wawa	No components listed
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Sunoco	<u>Components</u>	<u>Life span</u>
	Hose/Breakaway/nozzles	4~5 years
SMO	<u>Components</u>	<u>Life span</u>
	Spill containers	4~5 years
	Nozzles	1.5 year
	Vent caps	3~5 years
Royal Farms	<u>Components</u>	<u>Life span</u>
	Hanging hardware	2~5 years
	Spill basins	10 years
	VAC motors	5 years
	P/V vent caps	3 years
Crompco	<u>Components</u>	<u>Life span</u>
	Not listed	
UST Services	<u>Components</u>	<u>Life span</u>
	Vac. assist nozzles	2 years
	Spill basin	5 years
	Fill caps	2 years

Q7) What percentage of tests results in an INITIAL failure of the 10-in pressure decay test?

Wawa	N/A
Sunoco	About 2%
SMO	50%+
Royal Farms	5%
Crompco	>70%
UST Services	65%

Q8) What are the most typical components that result in failure of the INITIAL 10-in pressure decay test (those components that can be easily fixed or replaced during the test)?

Wawa	<u>Components</u>
	Drain valves to spill buckets
	Threads on the fill adapter
	Thread on the Stage I vapor recovery dry brake
Sunoco	<u>Components</u>
	Not listed
SMO	<u>Components</u>
	Loose/damaged Stage I adapter
	Loose fill adapter
	ATG caps
	P/V valves

	Nozzles Drop tube O-ring gasket Dispenser internal vapor recover piping
Royal Farms	<u>Components</u> Stage II fittings under dispenser Tank top fittings (ATG caps, fill adaptors) Hanging hardware
Crompco	<u>Components</u> Spill bucket drain valves Overfill drop tubes Fill adapters ATG caps Stage I vapor adapter
UST Services	<u>Components</u> Drop tube O-ring ATG caps P/V vents Stage II dispenser piping Vac. assist nozzles Loose Stage I and fill adapters Spill basin drains STP housing O-ring Mechanical line leak detector copper tubing (pressure relief)

Q9) How often are components replaced during a pressure decay test in order to get the GDF to pass the test?

Wawa	>10%
Sunoco	Infrequently
SMO	35%
Royal Farms	~10%
Crompco	20%
UST Services	40%

Q10) What are the most typical components that result in failure of the 10-in pressure decay test that cannot be resolved on the spot and thus results in a reportable failure?

Wawa	<u>Components</u> Vapor leak from a spill buckets
Sunoco	<u>Components</u> N/A

SMO	<u>Components</u> Underground Stage II piping system - rare Dispenser vapor assist motor – rare
Royal Farms	<u>Components</u> Corroded tank top risers (threads/pits) Below-ground Stage II piping (rare)
Crompco	<u>Components</u> Underground vapor piping leak Internal dispenser vapor piping leaks
UST Services	<u>Components</u> Multiple component failure (typically numerous small items that can be easily be replaced or repaired) Stage II piping failure

Q11) Have you assessed tank pressure monitoring and/or pressure management technologies, and if so, what have you found?

Wawa	Having Permeators at 7 GDFs, with average 25 gal/day returned.
Sunoco	Did some tests but data not favorable, not easily identify savings.
SMO	Yes, not economically viable, high maintenance costs, not compatible with ORVR.
Royal Farms	Yes, found extremely expensive to install and maintain, the ROI for these systems completely negated with ORVR and no Stage II.
Crompco	Not answered.
UST Services	No.

Q12) Do you own or operate a GDF that does NOT employ Stage 2 vapor recovery and operates 24/7? If so, would your company be willing to perform a continuous pressure monitoring test and/or an emission sampling test?

Wawa	Yes, having GDFs in MD, PA, VA, and FL, but not in DE.
Sunoco	Not in DE's 10 stations, but willing to talk to (other) state about running some pressure monitoring tests.
SMO	No.
Royal Farms	Yes, having GDFs in PA, VA and MD. Not opposed to these tests, granted no cost and no disturbance to operation.
Crompco	N/A.
UST Services	No.

Q13) Do you own or operate a GDF that does NOT employ Stage 2 vapor recovery and closes at night? If so, would your company be willing to perform a continuous pressure monitoring test and/or an emission sampling test?

Wawa	No.
Sunoco	Not in DE's 10 stations, but willing to talk to (other) state about running some pressure monitoring tests.
SMO	No.
Royal Farms	No.
Crompco	N/A.
UST Services	No.

Q14) Have you reviewed the Petroleum Equipment Institute's Stage 2 decommissioning protocols, and if so, do you have any comments?

Wawa	Yes, and have decommissioned several Stage II in VA. Comment: Stage II piping beneath the dispenser should be cut and capped and all other Stage II components should be removed.
Sunoco	Yes reviewed, but no comment.
SMO	Yes, reviewed and found it acceptable and practicable.
Royal Farms	No comment.
Crompco	Yes, good document, help with decommissioning properly. Referenced by many states for decommissioning (NH, MA, CT, ME, VA).
UST Services	Not answered.

Q15) Existing GDF's have been required to be in compliance with the Federal requirements of 40 CFR Part 61 Subpart CCCCC (commonly known as "Sub 6Cs") since January 10, 2011. Please identify any problems or inconsistencies that you have encountered or found over the past 2+ years when complying with the Sub 6Cs requirements compared to the existing Delaware Stage 1 requirement in the following areas:

- Complying with management practices or evaporative loss reduction requirements (for GDF owners):

Wawa	No problems encountered as all of our sites have had swivel adapters and drop tubes within 6" of the bottom of the tank well before the Federal Stage I regulations.
Sunoco	No issue.
SMO	No issue.
Royal Farms	No major issues to report.
Crompco	Pressure decay test referenced in Sub 6C (CARB TP 201.3) is not equivalent to DE's 10" pressure decay test. DE's test causes 5 times more emissions due to

testing than the 2" test. DE's test requires the test to be conducted with the P/V Valve removed from the system and is not representative of the station's actual working conditions.

UST Services No issue.

- Complying with notification, recordkeeping or reporting requirements (for GDF owners):

Wawa The EPA gave very little direction on notification, recordkeeping, and reporting.

Sunoco No issues.

SMO No issues.

Royal Farms No issues to report.

Crompco Notification in Sub 6C requires 60-day notification of testing.

UST Services No issue.

- Conducting performance testing requirements under Sub 6Cs (for Testing Service owners):

Wawa Not answered.

Sunoco No issues.

SMO N/A.

Royal Farms Not answered.

Crompco Multiple pressure decay tests must be done in order to comply with both Sub 6C and DE's regulations (must perform a 10" test and a 2" test because they are not equivalent).

UST Services No issues.