

GD GACT – The New Air Rule: Are You Ready to Comply?

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GD GACT

Actually Two New Rules

- Published together at:
 - 73 FR 1916 – January 10, 2008.
- Part 63 Subpart BBBBBB.
 - Gasoline Distribution Bulk Terminals, Bulk Plants, and Pipeline Facilities.
- Part 63 Subpart CCCCCC.
 - Gasoline Dispensing Facilities.

Subpart BBBBBBB

§63.11081(a)

- Applies to:
 - Bulk gasoline plants,
 - Bulk gasoline terminals,
 - Pipeline breakout stations, and
 - Pipeline pumping stations.
- If:
 - Such facility stores or transfers gasoline, and
 - Such facility is not subject to MACT R or CC.

Applies to Most Gasoline Terminals

- BBBBBBB applies to terminals that are not subject to MACT rules (*i.e.*, not major sources).
- Perhaps 90% or more of the U.S. terminals avoided major source (MACT) status.
- This “area source” rule applies to those terminals that avoided MACT.
 - Thus most terminals will be subject to this rule.

Affected Emission Points

§63.11082

- BBBBBB applies to the following:
 - Gasoline storage tanks,
 - Gasoline loading racks,
 - Vapor collection-equipped gasoline cargo tanks, &
 - Equipment components in gasoline service.
- It does not apply to loading of marine vessels.
 - It applies only to the loading of *cargo tanks* which, by definition, are tank trucks and railcars.

Gasoline Terminal



- Tanks,
- Trucks,
- Racks, and
- Equipment leaks.

Compliance Schedule

§63.11083

- Existing sources have 3 years to comply –
 - January 10, 2011.
 - Except that floating-roof tanks which require upgrades to comply are allowed to wait until the next degassing and cleaning activity after Jan. 10, 2011 but not later than Jan. 10, 2018 [§63.11087(b)].

Bulk Gasoline Plants – §63.11086

- Submerged fill for storage tanks \geq 250 gallons.
- Monthly sensory inspections for equip leaks
[sight, sound, smell – per §63.11089(a)].
- Observe good work practices:
 - Minimize gasoline spills.
 - Clean up spills as expeditiously as practicable.
 - Cover containers and fill pipes w/gasketed seal.
 - Minimize gasoline sent to open waste collection systems (*e.g.*, oil/water separators).

Storage Tanks at Terminals & Pipeline Facilities

- §63.11087 cites requirements in Table 1.
 - If $< 75 \text{ m}^3$ (~20,000 gal) – no open vents.
 - If $\geq 75 \text{ m}^3$ (~20,000 gal):
 - Route vapors to a control device (95% eff.), or
 - Comply with NSPS Kb for floating roofs, or
 - Comply with Part 63 Subpart WW for floating roofs
 - EXCEPT AS NOTED.

Exceptions to Storage Tank Requirements

- As with the GD MACT rule:
 - Gasketed deck fittings (per Table 1):
 - Are not required for IFRTs, and
 - Are only required for EFRTs if the rim seal has to be upgraded in order to comply.
- IFRs allowed to have a single wiper seal.
- *Detailed review of the Kb versus WW options for floating roofs to be presented in the upcoming API workshop on this rule.*

Loading Racks at Terminals & Pipeline Facilities

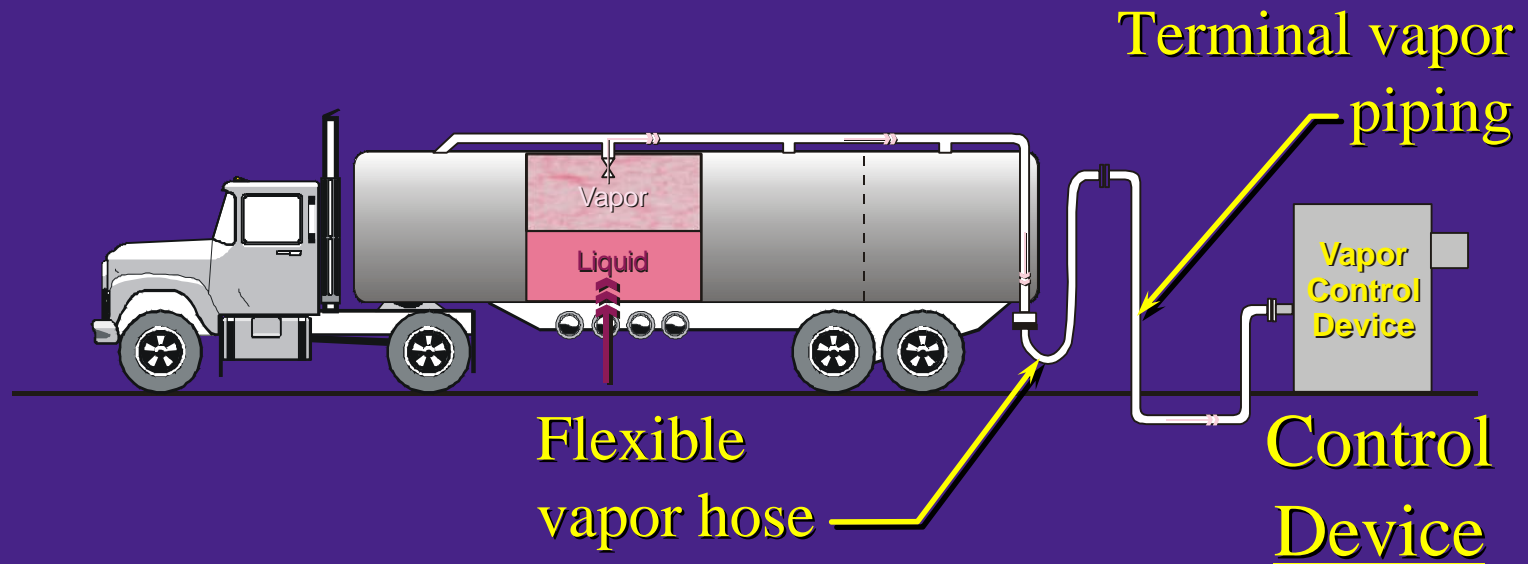
§63.11088 cites requirements in Table 2.

- If $< 250,000$ gal/day – submerged fill.
- If $\geq 250,000$ gal/day:
 - Route vapors to a control device (≤ 80 mg/l), and
 - Limit loading to cargo tanks (tank trucks and railcars) that are vapor tight (*i.e.*, annually tested to the 3” pressure drop standard of NSPS XX).

Vapor Collection and Control

Tank Truck

Vapor Collection System



Control Device

Compliance Demonstrations – §63.11092

- For a flare – per §63.11(b).
- Initial performance test for other devices:
 - Per NSPS XX (except with a leak definition of 500 ppm), unless:
 - The loading rack is already being operated in compliance with a standard of 80 mg/l or less, or
 - A qualified performance test has been performed within the past 5 years
 - submit for approval ASAP, because if not accepted a new test will be due w/in 180 d. after Jan 10, 2008.

Control Device

Monitoring Requirements – §63.11092

- For carbon adsorption, either:
 - CEMS, or
 - Monitor vacuum level, plus . . .
- For thermal oxidation units (enclosed), either:
 - Monitor firebox temperature continuously, or
 - Monitor for presence of a pilot flame, plus . . .

Monitoring Options

- As a condition of allowing the monitoring options requested by industry, EPA is requiring a rigorous program to assure that the unit is always operating properly.
 - This program includes the requirements shown in the slides that follow, as well as requiring the owner/operator to develop and submit a monitoring and inspection plan.
- If these requirements render the monitoring option too onerous, there is always the base monitoring provision (which is the same as in the MACT rule).

Carbon Adsorption Units

Monitoring Option: §63.11092(b)(1)(i)(B)

- Monitor vacuum level daily, and:
 - Test carbon activity annually, and
 - Monitor outlet VOC concentration monthly, and
- Verify proper operation, by daily visual observation or by automated alarm/shutdown, of:
 - valve sequencing, cycle time, gasoline flow, purge air flow, and operating temperature, and
- Perform semi-annual preventive maintenance.

Thermal Oxidation Units

Monitoring Option: §63.11092(b)(1)(iii)(B)

- Monitor for presence of a pilot flame, and:
 - Automatically shutdown loading if no flame, and
- Verify proper operation, by daily visual observation or by automated alarm/shutdown, of:
 - assist-air blower, vapor line valve, and emergency shutdown system, and
- Perform semi-annual preventive maintenance.

Equipment Leaks – §63.11089

- *Monthly* leak inspection of all equipment *in gasoline service*.
 - *Monthly* defined as once per calendar month at regular intervals of 28 days to 35 days.
 - *In gasoline service* defined as being used in a system that transfers gasoline or gasoline vapors.
 - Sensory inspection acceptable (sight, sound, smell).
- Maintain a log book.
- Repair w/in 15 d. if feasible; 1st attempt w/in 5 d.

Notifications – §63.11093

- Initial Notification as per 63.9(b):
 - due May 9, 2008!!!!
- Notification of Compliance Status due date a bit muddled – EPA guidance says Jan 10, 2011.
- If already in compliance, may submit NOCS by May 9, 2008 in lieu of Initial Notification.
- Notification of Performance Test as per 63.9(e).
 - If a new performance test is required.

Recordkeeping and Reporting

§63.11094 and §63.11095

- Keep records for 5 years.
- Submit semiannual compliance reports (similar to MACT Periodic Reports).
 - The semiannual compliance report is to be accompanied by an “excess emissions report” for specified “excess emissions events”.

General Provisions – §63.11098

- Table 3 shows which parts of the General Provisions are applicable to this rule.
- Startup, shutdown, and malfunction (SSM) plans are not required, but:
 - A rule-specific “monitoring and inspection plan” is required if utilizing the monitoring options for carbon adsorbers or thermal oxidizers.

Definitions – §63.11100

- Change in the distinction between a *bulk plant* and a *bulk terminal*.
 - Under NSPS XX and Part 63 Subpart R, a facility that received only by tank truck or rail car was a *bulk plant*, regardless of throughput.
 - That distinction has been removed in this rule; differentiation is solely on the basis of throughput (whether $>$ or $<$ 20,000 gal/day).
- *Flare* is defined as having an open flame.
 - Thus an enclosed combustion device is not eligible for the flare provisions.

Quick Look At CCCCCC Gasoline Dispensing Facilities

- Applies to each GDF located at an area source.
 - And thus does not apply to own-use gasoline dispensing located at a major source.
- Applies to:
 - Gasoline cargo tanks (*i.e.*, the tank truck that fills the storage tanks at the GDF), and
 - Storage tanks.
- Does not apply to refueling of motor vehicles.
 - This is a Stage I rule only.

Three Levels of Control

- Monthly throughput $< 10,000$ gallons:
 - Good operating practices to minimize/manage spills.
- Monthly throughput $10,000 - 100,000$ gallons:
 - Submerged fill of storage tanks larger than 250 gal.
- Monthly throughput $\geq 100,000$ gallons:
 - Vapor balancing when filling storage tanks.
 - Tank truck must be documented as vapor tight.
 - Vapor lines must be vapor tight.
 - Storage tank vent pipe to have a P/V vent.

Conclusion

- This is an overview of the GD GACT rules.
- Initial Notifications due May 9, 2008!!!!
- Submit requests for approval of prior performance tests ASAP!!
- API will have a one-day workshop to cover the GD GACT rules in detail.

- Questions?