

Overview of Some Recent Area Source NESHAPs

(National Emission Standards for Hazardous Air Pollutants)

40 CFR 63

- **Subpart BBBBBB (6B)** - Gasoline Distribution Facilities
- **Subpart CCCCCC (6C)** - Gasoline Dispensing Facilities (GDFs)

What are NESHAP Area Sources?

The Clean Air Act, Section 112(k)(1) states:

“The Congress finds that emissions of hazardous air pollutants from area sources may individually, or in the aggregate, present significant risks to public health in urban areas.”

- Area Sources have federal HAP emissions less than 10 tons per year (TPY) of any one, and less than 25 TPY of all combined.
- These sources must control specific hazardous air pollutants including a suite of metals or VOHAPs (volatile air pollutants).

NESHAP Area Sources - Background

July 19, 1999 Urban Air Toxics Strategy

- EPA required to target **30 HAPs** from area sources which pose the greatest potential public health threat in urban areas
- EPA must regulate area sources categories accounting for 90 percent of the emissions of 30 listed HAPs
- EPA listed **70 area source categories**, including paint stripping operations, plastic parts and products surface coating, plating and polishing, and bulk and retail gasoline facilities

Area Source Categories

- EPA has identified **70 area source categories** that account for 90% of the emissions of the 30 area source HAPs.
 - See: <http://www.epa.gov/ttn/atw/area/arearules.html>
- Area source categories classified by **NAICS** (North American Industrial Classification System) codes.
- Area source codes are based on operations such as municipal landfills, dry cleaners paint stripping operations, plating and polishing, and industrial boilers.
- Many area source controls are based upon GACT rather than MACT.

MACT VS. GACT

MACT	GACT
Maximum Achievable Control Technology	Generally Available Control Technology
Major HAP and Area Sources	Area Sources Only
Congressionally mandated rulemaking approach	Optional approach to MACT in rulemaking (less stringent)
Floor for New: Emission control level of best controlled similar source Floor for Existing: Avg. emission rate of best performing 12% or avg. of best performing 5 facilities (if < 30 facilities)	Technologies that are 'generally available' to source category

What are the HAP targets of these subparts?

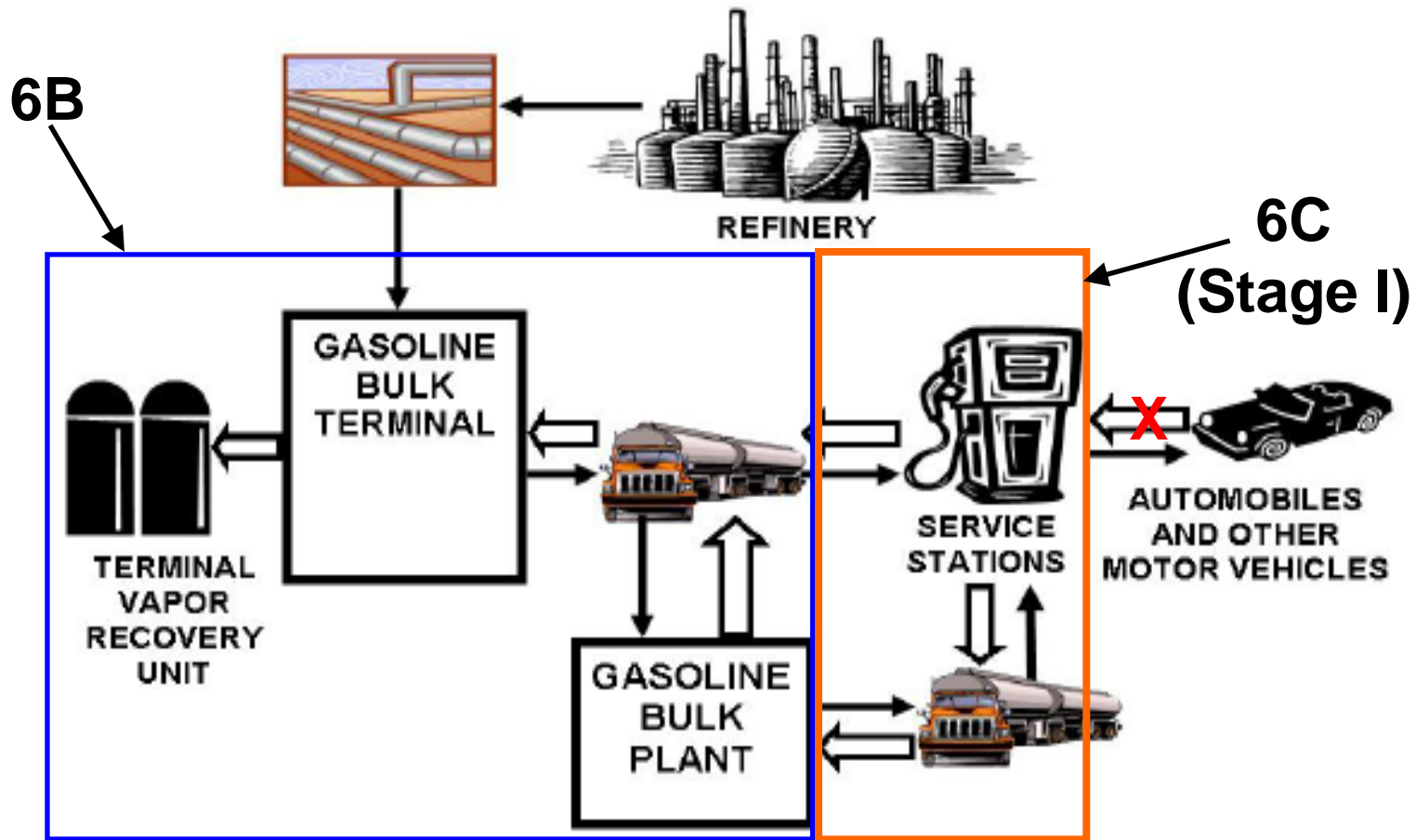
Subparts 6B and 6C Target the VOHAP (Volatile Organic HAP) Benzene

NESHAP: Area Source Standards for Gasoline Distribution Facilities (GDF)

40 CFR Part 63 Subpart BBBBBB (6B)

July 1, 2008

Flow Diagram of Gasoline Distribution System



Solid arrows indicate flow of gasoline, open arrows indicate flow of gasoline vapors.

6B – GDF Area Sources

6B regulation is similar to parts of:

- 40 CFR 63 Subpart R - National Emission Standards for Gasoline Distribution Facilities (Bulk Gasoline Terminals and Pipeline Breakout Stations)
- 40 CFR 60 Subpart Kb - Standards of Performance for Volatile Organic Liquid Storage vessels (including Petroleum Liquid Storage Vessels)

6B – GDF Rule Requirements:

1. Best seals on most storage tanks at terminals and pipeline facilities;
2. Use of submerged fill pipes when loading storage tanks at bulk plants;
3. Vapor processors to control cargo tank (railcars and tank trucks) loadings at most bulk terminals;
4. Use of submerged fill pipes to control tank truck loading emissions at bulk plants and small bulk terminals;
5. Leak testing of tank trucks and railcars; and
6. Checking for equipment leaks (sight, sound, and smell inspections) and using good housekeeping procedures to prevent evaporation of gasoline.

6B - Vapor processors to control tank truck loadings at most bulk terminals



6B Reporting, Records and Compliance

1. Initial Notification was due by January 10, 2008 for New Sources, and May 9, 2008, for Existing Sources.
2. Notification of Compliance Status for all facilities is due January 10, 2011. *Notification of Compliance Status may be submitted in lieu of Initial Notification.*
3. Owner/Operators must submit a Notification of Performance Test prior to initial test on vapor processing and collection systems.
4. Semi-annual compliance reports and excess emissions reports (if applicable), are required.

NESHAP: Area Source Standards for Gasoline Dispensing Facilities (GDFs)

40 CFR Part 63 Subpart CCCCCC (6C)

July 1, 2008

6C Gasoline Dispensing Facilities (GDFs)

This rule applies to gasoline dispensing facilities (GDF) that are area sources of HAP. A GDF is defined as any stationary facility which dispenses gasoline into the fuel tank of a motor vehicle.

The affected source subject to this rule includes each gasoline cargo tank during the delivery of product to a GDF and also includes each storage tank.

6C - Retail and Private GDFs Nationwide:

- At all facilities, checking for leaks and using good housekeeping procedures to prevent evaporation of gasoline, and
- At facilities with monthly gasoline throughputs of 10,000 gallons or more, submerged fill pipes when loading storage tanks, and
- At facilities with monthly gasoline throughputs of 100,000 gallons or more, vapor balancing between the storage tank and the tank truck

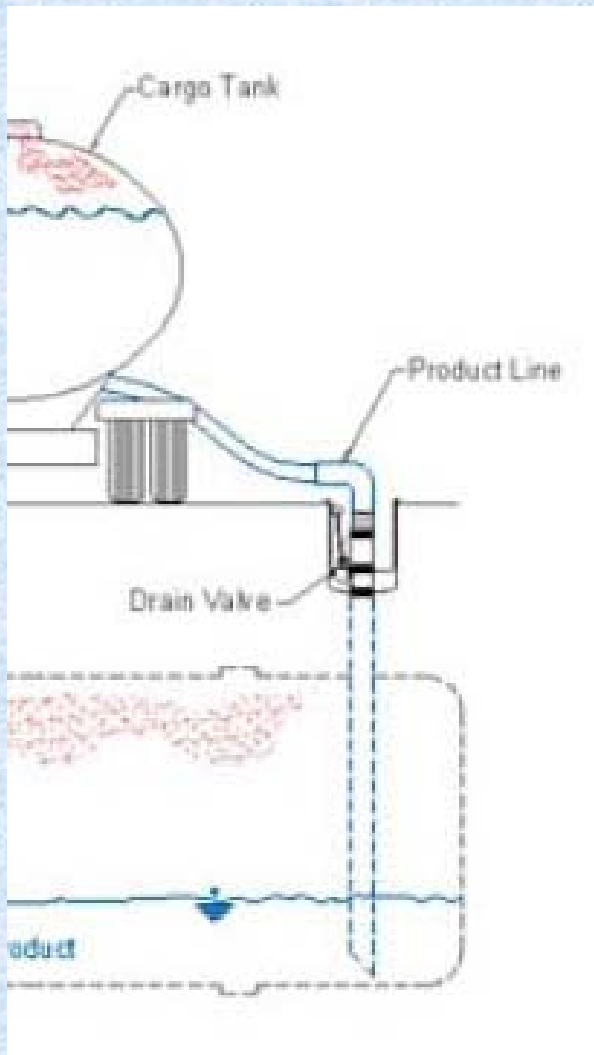
6C - GDFs

All facilities must not allow gasoline to be handled in a manner that would result in vapor releases to the atmosphere for extended periods of time.

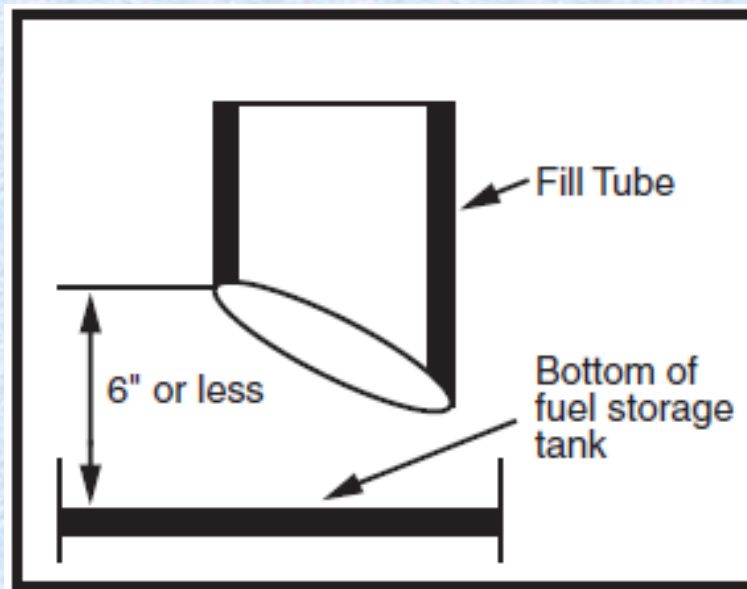
Measures to be taken include, but are not limited to, the following:

- (1) Minimize gasoline spills;
- (2) Clean up spills as expeditiously as practicable;
- (3) Cover all open gasoline containers and all gasoline storage tank fill-pipes with a gasketed seal when not in use;
- (4) Minimize gasoline sent to open waste collection systems that collect and transport gasoline to reclamation and recycling devices, such as oil/water separators.

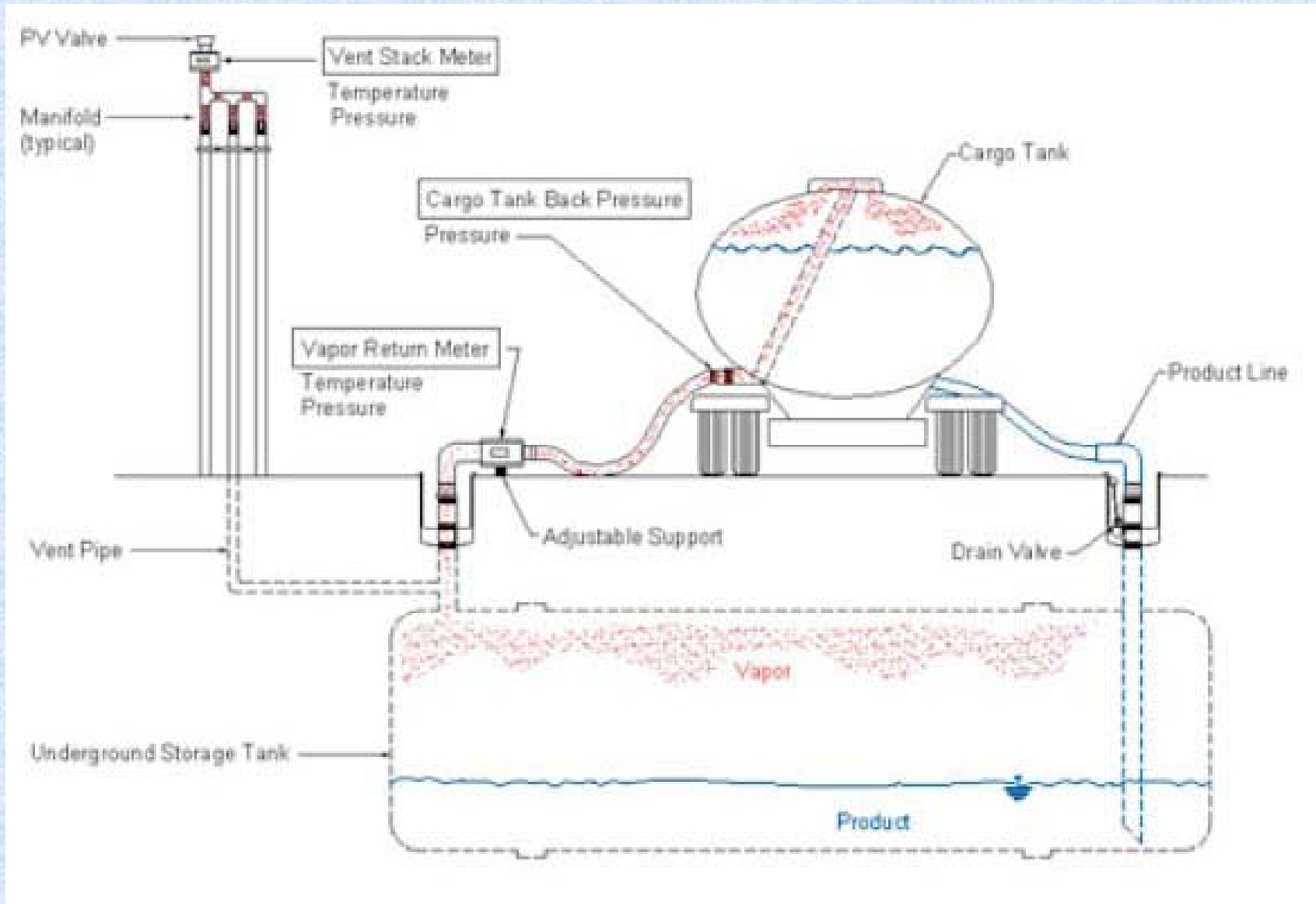
Fill Pipes



- Submerged fill pipes installed on or before November 9, 2006, must be no more than 12 inches from the bottom of the storage tank.
- Submerged fill pipes installed after November 9, 2006, must be no more than 6 inches from the bottom of the storage tank.
- Gasoline storage tanks with a capacity of less than 250 gallons are not required to comply with the submerged fill requirements.



Dual Point Vapor Recovery



Dry Break

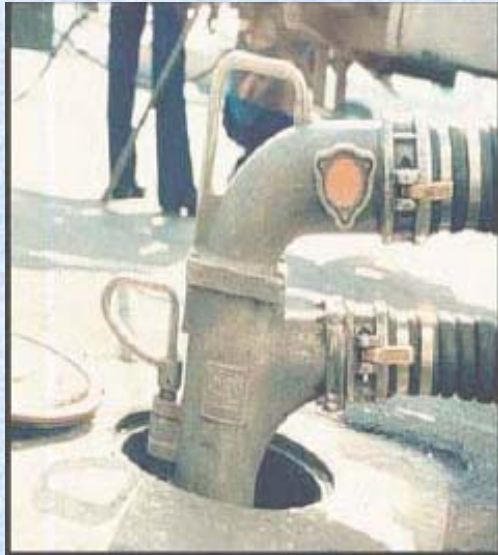


White lid: 87 Octane (regular unleaded)
Blue lid: 89 Octane (Plus formula)
Red lid: 93 Octane (Super)
Orange lid: Vapor recovery line
(Green lid: Diesel)

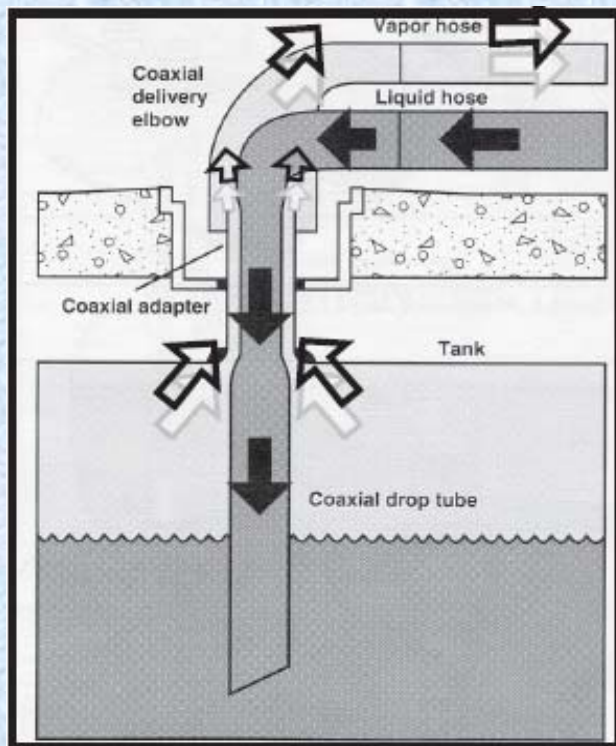
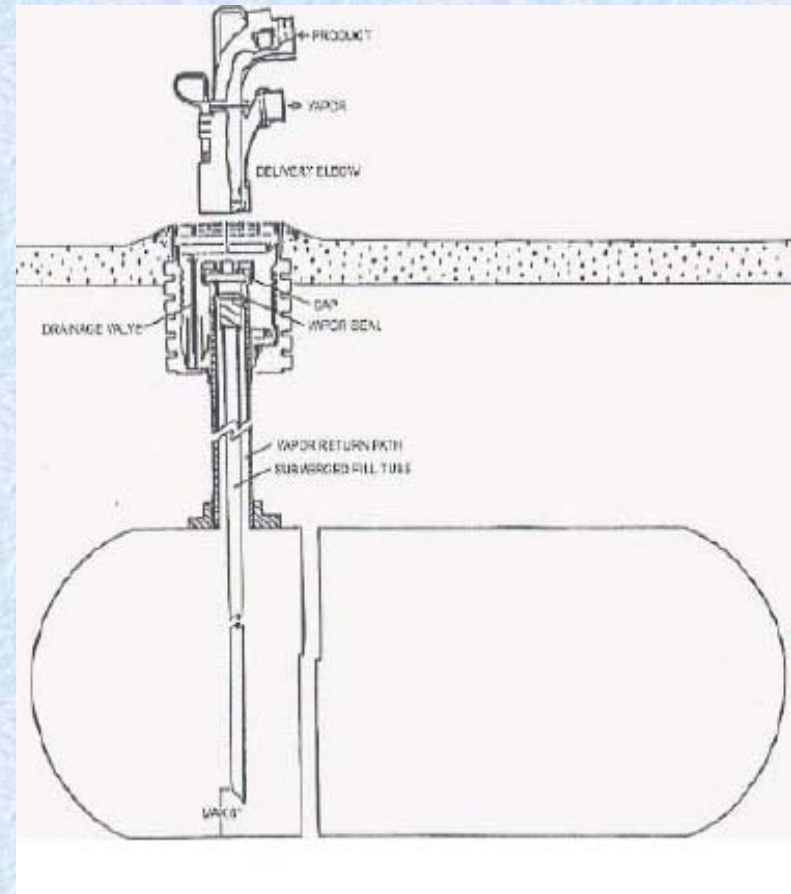
Dry Break



These are BAD



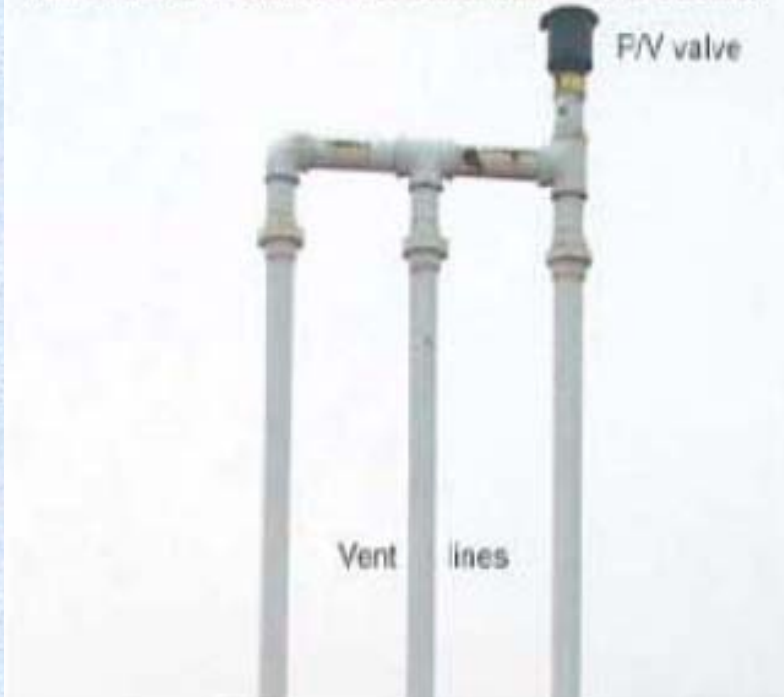
One Point Coaxial



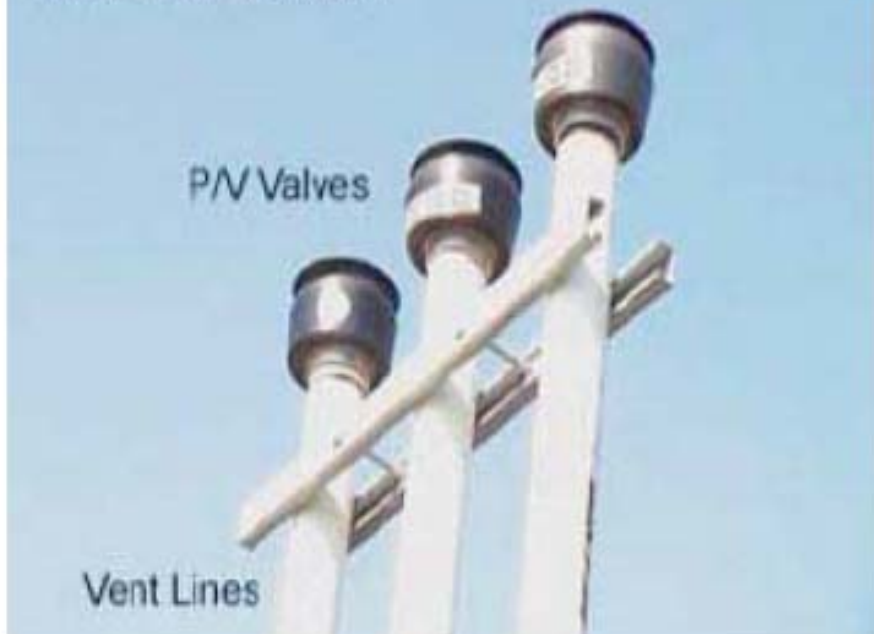
Please note: coaxial vapor recovery systems will only be allowed as a retrofit to tanks installed prior to 11/9/06. Coaxial controls may not remain vapor and liquid tight over extended periods of use due to repeated torque force on the swivel adaptor. EPA strongly discourages the use of coaxial systems because of these problems.

Pressure Vacuum Vents

Three vent lines manifolded into one.



Three unmanifolded vent lines with three P/V Valves.



Vents must be installed and tested to make sure they have the proper “cracking pressure”.

Pressure Vacuum Vents – Illegal Installations

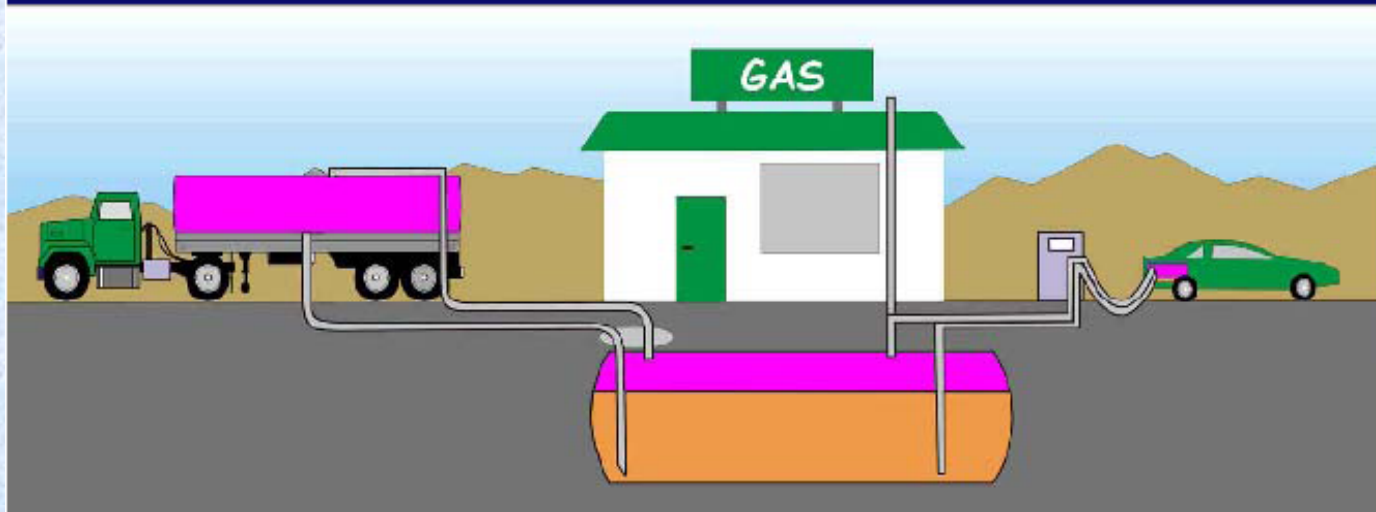


6C-Stage I GDFs

- January 2008, EPA passed a federal rule for Gas Stations that requires **Stage I** Vapor Recovery for all stations that have a monthly throughput of 100,000 gallons or more.
- Existing sources have until **January 2011** to comply with this new federal rule.
- State or Local Option: Enhanced Stage I regulations **could require** vapor recovery for stations at a lower throughput than is currently required by the federal government.
- The cost for installation of Stage I is around \$10,000-\$15,000 per gas station with little to no maintenance costs.

Vapor Recovery Costs

Vapor Recovery at Service Stations



Phase I

**\$10,000 – \$15,000
per station**

Phase II

**\$7,000 – \$10,000
per pump**

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6B and 6C Compliance Dates

- GDF is “new” if construction, reconstruction of affected source began after November 9, 2006
- New sources must achieve compliance by January 10, 2008, or upon initial startup of the affected source, whichever is later
- Existing sources must achieve compliance by January 10, 2011

6C Notification, Reporting and Records

Less than 10,000 gallons annually:

None, but must demonstrate throughput is less than 10K gallons.

Greater than 10K annually:

- **Initial notification for existing GDFs: 5/9/08**
- **New GDFs: 15 days**

Greater than 100K annually:

- **Same as for greater than 10K annually, plus:**
- **System records, reports, tests**
- **Record of initial and every three year pressure tests**
- **Test notification 60 days prior to test and results 180 days after test**

6C Notification, Reporting and Records

Notification of Compliance Status for GDFs:

If new or reconstructed after November 9, 2006, no later than January 10, 2008

If new and started after January 10, 2008, upon startup

If existing, no later than January 10, 2011

If average monthly throughput increases and becomes subject to additional requirements, then no later than 3 years after the GDF becomes subject to the rule.

Where to Send Notifications and Reports

Notifications and reports are to be sent to:

NMED AQB in Santa Fe

And to

**EPA Region 6
1445 Ross Avenue
Suite 1200
Dallas, Texas 75202-2733**

For More Information

- <http://www.epa.gov/ttn/atw/area/arearules.html>
 - Brochures
 - One-page summaries
 - Flow charts
 - Example Notification forms
 - List of SIC/NAICS for applicability determinations for nine metal fabricating source categories
 - Ask SBEAP, we may have information that we can give to you (check our website)