



*This Advisory is provided to inform you about activities of the District which may affect your operation. It will assist you in your effort to achieve and maintain compliance with applicable air pollution rules and regulations.*

**ATTENTION: BAY AREA BULK TERMINALS**

**SUBJECT: NEW COMPLIANCE DEADLINES IN AMENDED REGULATION 8, RULE 33, GASOLINE BULK TERMINALS AND GASOLINE CARGO TANKS**

On April 15, 2009, the Bay Area Air Quality Management District (District) Board of Directors adopted new emission and reporting requirements into Regulations 8, Rule 33, Gasoline Bulk Terminals and Gasoline Cargo Tanks. Below is a summary of compliance deadline dates that Bulk Terminal operators should be aware of:

**New requirements due by October 1, 2010:**

- Gasoline bulk terminals shall develop and submit a **Monitoring, Inspection, Notification and Reporting Plan** to the District for approval by **October 1, 2010**. See Appendix A for requirements of this plan. (8-33-403)
- If an alternate **parametric monitoring protocol** is opted in lieu of a continuous monitoring system at the outlet of the vapor recovery system, the parametric protocol must be submitted to the District for approval by **October 1, 2010**. (8-33-309.13.2)

**New requirements effective January 10, 2011:**

- Emissions of organic compounds from a bulk terminal vapor recovery system shall not exceed **0.04 pound (lb) per 1,000 gallons** of organic liquid loaded. (8-33-301.2) For terminals where multiple vapor processors are used, such as carbon adsorption systems with two carbon beds, each vapor processor (e.g., each carbon bed) must comply with this limit.
- Each terminal **vapor hose** shall have a **hanger** available to hang the vapor return hose off of the ground and out of the driveway path when not in use. (8-33-309.9) Gasoline cargo tank operators shall return the bulk terminal **vapor recovery hose** to its hanger when not in use. (8-33-304.10)
- When the vapor storage tank is in service and gasoline loading is in progress, total organic compound concentrations in the **airspace above the diaphragm** shall be monitored and recorded with a hydrocarbon analyzer weekly. (8-33-308.2)
- Vapor recovery system piping must include a **block valve or vapor check valve** on the bulk terminal piping connection to each vapor hose, and a **poppet valve** connector at the end of each vapor hose. (8-33-309.7)
- The **liquid fill hose connector seals** and **vapor hose connector seals** and **pressure/vacuum valves (P/V)** shall be **inspected daily** using sight, sound and smell, and checked with a hydrocarbon analyzer **weekly** to ensure each connector and P/V valve associated with the terminal is liquid leak free and vapor leak free and the findings **recorded**. Any leaks requiring repair shall be **re-inspected** until confirmed they are leak free, and the date compliance is confirmed shall be **recorded**, and those records retained on-site for at least **5 years**. (8-33-309.8, 8-33-504)

- A **backpressure monitor** shall be installed on the vapor collection piping of each terminal loading rack, and shall be correlation **tested annually** with pressure measured at the loading rack/cargo tank interface. Backpressure monitors shall be maintained in good working order as specified by the manufacturer and **calibrated** as specified by the manufacturer or annually, whichever is more frequent. (8-33-305.4) The District shall be notified at least **7 days** prior to the correlation test. (8-33-309.10) The correlation test results shall be retained on-site for at least **5 years**. (8-33-505) Facilities shall submit a permit application prior to installation of the monitors. See Appendix B for guidance on location of backpressure monitors and correlation testing protocol.
- Each gasoline bulk terminal shall install one of the following **backpressure devices** on each loading rack:
  - An **alarm system** that activates an audio or visual alarm, and records the event when any backpressure monitor indicates a **pressure exceeding 16.0 inches** of water column at the cargo tank/vapor hose interface. If the **pressure exceeds 18.0 inches** of water column at the cargo tank/vapor hose interface, the alarm system shall activate an *additional* audio or visual alarm and record the event. (8-33-309.11.1)
  - An **automatic lockout system** that deactivates product loading at the conclusion of any loading event during which the backpressure monitor indicates a **pressure exceeding 18.0 inches** of water column at the cargo tank/vapor hose interface. (8-33-309.11.2)
  - If the **backpressure exceeds 18.0 inches** of water column at any vapor return hose/cargo tank interface, the *terminal* operator shall finish the loading event, then **shutdown** the affected loading arm(s) and affected portion(s) of the vapor recovery system, and **notify** the District of the event within **24 hours**. All excess backpressure events, responses, results of investigations, and corrective actions taken shall be **recorded**, and those records retained on-site for at least **5 years**. (8-33-309.12 & 8-33-505)
- Gasoline bulk terminals shall **continuously monitor and record** organic compound concentrations at the **outlet** of the vapor recovery system, *or* implement a District pre-approved alternate **parametric monitoring** protocol (309.13.1 & 309.13.2). Gasoline bulk terminals shall notify the District (Attn: Compliance & Enforcement Division) within **24 hours** of any parametric monitor indicating a potential operating limit excess, and conduct an investigation and **record** the findings and corrective actions, and those records shall be retained on-site for at least **5 years**. (8-33-309.14 & 8-33-507)
- A new federal National Emission Standards for Hazardous Air Pollutants (NESHAP), 40 CFR part 63 Subpart BBBBBB was promulgated in January 2008; the NESHAP has a compliance deadline of January 10, 2011. This NESHAP regulates area source Gasoline Bulk Terminals, Bulk Plants and Pipeline Facilities. All Bay Area Gasoline Bulk Terminals that are not subject to 40 CFR part 63 subpart R (NESHAP for major source Gasoline Distribution Facilities) are subject to this new NESHAP, 40 CFR Part 63 subpart BBBBBB. Note that in some cases, these requirements may be more stringent than the requirements in 8-33.
  - For example, in the case of a parametric operating limit excess, 40 CFR Part 63, Subpart BBBBBB requirements are more stringent, requiring investigation within 1 hour, and initiation of corrective actions within 24 hours to prevent the excess from being a violation of the emission limit standard.
- All **P/V valves** connected to vapor recovery systems shall be accessible or equipped with a **permanent sample line** to each of the potential leak sources at the pressure and vent openings of the P/V valve. Each sample line must be at least **0.25 inches** nominal diameter and situated within **1 cm** of the potential leakage sources. The sample lines shall terminate less than **5 feet** above grade or platform access point and be equipped with **sample (on/off) valves**. Samples shall be measured using a hydrocarbon analyzer. (8-33-309.15)

- The District-approved **Monitoring, Inspection, Notification and Reporting Plan** due by October 1, 2010 must be **implemented** by **January 10, 2011**. (8-33-403)

**New requirements effective January 10, 2012:**

- Prior to any maintenance and/or repair on the product or vapor hoses that requires opening the hoses to the atmosphere, a gasoline bulk terminal shall transfer any retained liquid gasoline in hoses to either a **portable maintenance container** equipped with liquid and vapor hose connectors *or* to a **slop tank** through fixed piping or a liquid hose connector. The cover, seal, lid, or connector shall be in a closed position at all times except when the device is in use for liquid transfer, inspection, maintenance, or repairs. (8-33-305.2)

**If you have any further needs, please call the District at the following numbers:**

- ☎ For a copy of Regulation 8, Rules 33 and 39, please visit the District website at: <http://www.baaqmd.gov/rules>
- ☎ For further questions regarding this Advisory contact: Mike Wall, Supervising Air Quality Specialist at (415) 749-4903, or [mwall@baaqmd.gov](mailto:mwall@baaqmd.gov)
- ☎ For Source Test questions contact: Chuck McClure at (415) 749-4608, or [cmclure@baaqmd.gov](mailto:cmclure@baaqmd.gov)
- ☎ For District Permitting questions related to Bulk Terminals contact: Xuna Cai at (415) 749-4788, or [xcai@baaqmd.gov](mailto:xcai@baaqmd.gov)
- ☎ For compliance assistance, call (415) 749-4999, the Compliance Counselor Hotline.

Kelly J. Wee  
Director of Enforcement

## **Appendix A: Monitoring, Inspection, Notification and Reporting Plan**

District guidance:

Note – this requirement is intended to ensure each terminal **holds itself accountable** to meeting the requirements in 8-33:

- Identify each requirement in 8-33, including parametric monitoring. Identify each requirement in all other federal requirements (Subpart XX, R, BBBB, etc.). Note that these requirements may be more stringent than the requirements in 8-33.
- Create a specific task and frequency for each requirement, including a record that verifies the task has been completed per the schedule.
- Clearly define the action required if one of the requirements is not met, including a record that verifies this action has been taken.
- Provide a summary of the records kept, including any omissions and notifications to the APCO of requirements that were not met.

Inspectors will review compliance with this plan and recordkeeping as a key part of their terminal inspection.

## **Appendix B: Backpressure Monitoring**

Location of pressure sensor taps for backpressure monitoring system:

- Backpressure monitors shall be located on the fixed vapor piping as close to the vapor hose connectors as feasible. Alternate locations may be utilized subject to prior approval by the APCO.

District guidance:

- Each facility shall submit a completed district permit application in order to address the equipment changes associated with the required backpressure monitoring in 8-33.
- District preference for location of the backpressure monitoring pressure sensors: coupling insert (with pressure tap) installed between the vapor hose and the fixed vapor piping on each vapor return line. This approach is very low cost, and provides an opportunity to measure the backpressure on the fixed piping of the vapor recovery system as close as possible to the vapor hose/cargo tank connector.
- Pressure correlation testing (described in more detail below) should be done at maximum or design loading rates, or as near to maximum or design loading rates as possible, for all vapor return lines that are monitored by any one backpressure sensor. During correlation testing, the pressure drop between the backpressure monitoring sensor and the highest vapor hose / cargo tank interface pressure should be no more than 4" water column at maximum or design loading rates. If the pressure drop is greater than 4" water column, the backpressure monitoring sensor should be relocated closer to the vapor hose / cargo tank connector with the highest backpressure.

Correlation testing:

- Correlation testing is required annually, with the pressure measured at the vapor hose/cargo tank interface. The APCO (Manager of Source Test) shall be notified at least 7 days prior to the date the test is to be conducted.

District guidance:

- This testing shall be done by the terminal annually to ensure that the backpressure monitors are working properly, and to ensure that any vapor hose/cargo tank interface pressure exceedance is detected and recorded.
- Each facility permit will include a standard permit condition requiring submittal of a proposed initial backpressure correlation test protocol at least 15 days prior to testing. Protocols will be reviewed and approved by the Source Test Section. Protocols shall be submitted electronically to Source Test at [sourcetest@baaqmd.gov](mailto:sourcetest@baaqmd.gov).
- Source Test staff will review the correlation test protocol to ensure it meets the following requirements:
  - For any backpressure sensor that monitors a single vapor return line, the loading rate during correlation testing shall be the design loading rate so the vapor return flow is at design rate, or
  - If correlation testing at the design loading rate is not feasible, testing shall be at two different loading rates (one loading arm and two loading arms, or half of maximum and full loading rate) to develop backpressure / flow rate data needed to extrapolate the pressure drop between the backpressure monitoring sensor and the vapor hose/cargo tank interface pressure at the design loading rate.
  - For any backpressure sensor that monitors more than one vapor return line, the loading rate during correlation testing shall be the design loading rate to each of the loading arm / vapor return line systems so the vapor return flows through each vapor return line are at design rates, or
  - If correlation testing at the design loading rates is not feasible, testing shall be conducted at two different loading rates (one loading arm and two loading arms at each loading station, or half of maximum and full maximum loading rate at each loading station) on all of the loading arm / vapor return line systems to develop backpressure / flow rate data for each loading arm/vapor return line system as needed to extrapolate the pressure drop between the backpressure monitoring sensor and the location that experiences the highest vapor hose/cargo tank interface pressure at the design loading rate.
- The Manager of Source Test shall be notified at least 7 days prior to the date the test is to be conducted. Final report submission should be made within 60 days of testing. Notification and final report submission should be made electronically to the Manager of Source Test at: [sourcetest@baaqmd.gov](mailto:sourcetest@baaqmd.gov).
- The outcome of the testing will be used to ensure the alarm set points on the backpressure monitors are set correctly so that the monitor will alarm before the pressure at the most sensitive (i.e. highest backpressure) vapor hose / cargo tank interface reaches 16" and 18" respectively.
- If a terminal plans to implement an alternate backpressure monitoring system under the provisions of 8-33-309.11.3, please submit your plans electronically to the Manager of Source Test at: [sourcetest@baaqmd.gov](mailto:sourcetest@baaqmd.gov).

Recordkeeping:

- The alarm system shall activate an audio or visual alarm and record the event.

District guidance:

- The “record” of any overpressure alarm must be a permanent, non-resettable chart or electronic record. An operator notation in a log is not adequate.