



Compliance Advisory

July 31, 2014

Vacuum Truck Operations

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

ATTENTION: OPERATORS OF VACUUM TRUCKS
SUBJECT: REGULATION 8-53 COMPLIANCE UPDATE

On April 18, 2012, the Bay Area Air quality Management District (Air District) adopted Regulation 8, Rule 53: Vacuum Truck Operations. This new rule established organic vapor emission limits and other controls for vacuum trucks that transfer regulated materials at petroleum refineries, bulk plants, bulk terminals, marine terminals, and organic liquid pipeline facilities. Regulated materials are defined in Section 218 of the rule as any of the following (note: crude oil is not a regulated material):

- Gasoline, aviation gasoline, gasoline blending stock, naphtha;
- Transmix, slop, or any other hydrocarbon mixture that includes a material listed above.

The following requirements went into effect on **April 1, 2013**:

1. An organic vapor emission limit of 500 parts per million by volume (ppmv) from the vacuum truck blower exhaust (Reg. 8-53-301);
2. A liquid leak limit of three drops per minute from the vacuum truck or related equipment (Reg. 8-53-302);
3. A vapor leak limit of 500 ppmv from the vacuum truck or related equipment (Reg. 8-53-303);
4. Requirements for unloading regulated material from the vacuum truck (Reg. 8-53-304);
5. Administrative requirements for loading events; and
6. Emissions monitoring and Recordkeeping requirements.

Frequently Asked Questions (FAQs):

- **Is a positive displacement pump or gravity feed loading exempt from the rule?**
A limited exemption from certain sections of the rule applies. A loading event in which gravity or a positive displacement pump is used to transfer regulated materials into a vacuum truck shall be exempt from the requirements of Sections 8-53-301 (organic compound vapor emission limit) and 8-53-501 (monitoring) only. All other sections of the rule still apply during a Vacuum Truck Operation (defined by 8-53-223) which means the operator is not exempt from Sections 302 and 303.
- **How do operators monitor for Total Organic Compounds (TOC, “organic vapors”) concentrations if the operator is subject to Section 301 and required to monitor per Section 501?**
The operator should refer to 8-53-601 (*Measurement of TOC concentrations*). This section states the measurements shall be conducted U.S. EPA Method 21 or 25A or the BAAQMD Manual of Procedures, Volume IV, ST-7. Section 601 also states that a flame ionization detector (FID) should be used when determining compliance per Method 21.

- **What is the leak detection method used to determine compliance with the vapor leak 500 ppm limit?**

If leak detection inspections are performed the operator must monitor using U.S. EPA Method 21 with an FID. If a leak is discovered it shall be minimized within 3 minutes or shutdown the loading operation.

- **What are the monitoring requirements if the emissions limits (Section 301) apply to me?**

The monitoring requirements (8-53-501) are determined by the type of emission control system: carbon adsorption, NON-carbon adsorption, or an abatement device with 95% efficiency. A brief summary is provided below, see the regulation for specific requirements:

- Carbon adsorption – conduct measurements within 2 minutes of startup and every 10 minutes;
- NON-carbon adsorption - conduct measurements at 20% and 60% of truck capacity;
- Abatement (with 95% efficiency) – requires source testing (for more information on source testing, see web link below).

- **To determine if my control equipment can achieve a 95% emission reduction efficiency, can I accomplish that by using U.S. EPA Method 21 to measure the difference in TOC concentrations between the inlet versus outlet?**

No. The 95% emission reduction efficiency can only be determined by using Method 25 or 25A or ST-7 as stated in Section 8-53-604.

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

- ☎ For questions about this advisory contact Eric Pop, Air Quality Specialist at epop@baaqmd.gov or (415) 749-5172
- ☎ For information on source testing, see <http://www.baaqmd.gov/Divisions/Technical-Services/Source-Test>
- ☎ For a copy of the rule, see www.baaqmd.gov/dst/regulations/index.htm
- ☎ For compliance assistance, call (415) 749-4999, the Compliance Counselor Hotline.

Wayne Kino
Director of Compliance and Enforcement