

# Air Quality Update

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## February 10, 2016 – BAAQMD

### DIESEL OFF-ROAD REPORTING REQUIREMENTS FOR MEDIUM FLEETS BEGINS IN 2016

#### 13 CCR §2449 – General Requirements for In-Use Off-Road Diesel-Fueled Fleets

All fleets were required to provide initial reporting of their fleet back in 2009, or within 30 days after the fleet was brought into California, whichever was later. Subsequent reporting deadlines are based on the fleet size, as shown in the below table.

**Table 1: Fleet Compliance Due Dates**

Fleet Category	Total Fleet HP	Reporting Due Dates	Performance Due Dates
Large	> 5,000 hp	Mar. 1: 2012-2023	Jan. 1: 2014*-2023
Medium	2,501-5,000 hp	Mar. 1: 2016-2023	Jan. 1: 2017-2023
Small	< 2,500 hp	Mar. 1: 2018-2028	Jan. 1: 2019-2028

\*2014 performance requirements for large fleets were due July 1, 2014.

Large fleets, defined as having more than 5,000 total fleet horsepower (hp), were required to begin annual reporting in 2012 and continue annually until at least 2023. Performance requirements for large fleets began July 1, 2014, and continues annually by January 1<sup>st</sup> from 2015 through 2023.

Medium fleets, defined as having a total fleet size of 2,501 to 5,000 hp, must report their January 1, 2016, fleet status by March 1, 2016, and continue annually until at least 2023. Performance requirements for medium fleets begins in 2017 and annually thereafter through 2023.

Small fleets, defined as having a total fleet size of 2,500 hp or less, have annual reporting due from 2018 through

at least 2028 and their performance requirements are due from 2019 through 2028.

Annual reporting is done by submitting a Responsible Official Affirmation Reporting (ROAR) form. By having the Responsible Official (or Designee) sign a ROAR, they are indicating that the fleet information in the Diesel Off-Road Online Reporting System (DOORS) is accurate. Updates to the fleet can be done online in DOORS or with paper forms. A designee may be assigned by the Responsible Official at any time with a Designated Official form.

Reporting beyond the 2023 (large and medium fleets) or 2028 (small fleets) due dates will be necessary for fleets that do not meet the final fleet average target, which could be as a result of utilizing the Best Available Control Technology (BACT) annual rate compliance method and/or only meeting the fleet average target with low-use reporting.

Performance requirements can be met in one of two ways, either through meeting the fleet average target or via BACT annual rate. Companies may switch between the two compliance methods as they like. The fleet average target is specific to the fleet makeup, based on the fleet category and individual equipment horsepower and emission factor (tier). The BACT annual rate requirements are based on the fleet size and compliance year. Compliance checks with both methods are done within DOORS. Compliance planning for future years can be done with the aid of the planning tool created by the California Air Resources Board (CARB).

### Air Quality Tip

*The CARB Refrigerant Management Program requires that all facilities whose largest refrigeration system is a small system (those containing more than 50 pounds but less than 200 pounds) are required to register for the first time by March 1, 2016. Small facilities are not required to file an Annual Report or pay the Annual Implementation Fee. The CARB online Refrigerant Registration and Reporting tool, known as R3, can be accessed via: <https://ssl.arb.ca.gov/rmp-r3/>.*

### Upcoming Training Offered by Yorke Engineering

- Bay Area Air Quality Regulations, Permitting, and Compliance Seminar: March 29 – March 30, 2016
- California Multi-Media Environmental Regulations: Permitting, Compliance, and Reporting Seminar: April 12 – April 13, 2016  
<http://www.yorkeengr.com/AirQualityClasses.htm>

### Upcoming Due Dates for 2016\*

- USEPA GHG Report ..... 3/31
- CARB GHG > 25K Metric Tons ..... 4/11
- CARB GHG 10-25K Metric Tons and All Electric Retailers ..... 6/1
- CARB GHG SF<sub>6</sub> Switchgear ..... 6/1
- CARB In-Use Off-Road Diesel Vehicle Annual Reporting for Medium and Large Fleets ..... 3/1
- CARB PERP Equipment Units Annual Report ..... 3/1
- CARB Refrigerant Registration for Small Systems (> 50 lbs., < 200 lbs.) ... 3/1
- CARB Refrigerant Reporting for Medium and Large Systems (≥ 200 lbs.) ..... 3/1
- Semi-Annual Title V Report ..... Semi-Annually
- Annual Title V Compliance Certification ..... Annually
- Title V – Application for Permit Renewal – Due 180 Days Prior to Permit Expiration

\*All due dates listed are the statutory dates; sometimes dates are extended when they fall on a weekend/holiday.

## BAAQMD TIGHTENS RESTRICTIONS ON COOLING TOWER EMISSIONS

The Bay Area Air Quality Management District (BAAQMD) is proposing an expansion to restrictions on cooling tower emissions to address total hydrocarbon (THC) emissions and toxic air contaminant emissions from the oil and gas refining industry. These new rules will be in addition to existing rules addressing cooling tower emissions from hexavalent chromium, which are already regulated under Regulation 11, Rule 10, "Cooling Towers," and originally promulgated in 1989. There are federal U.S. Environmental Protection Agency (EPA) Maximum Achievable Control Technology (MACT) requirements as well that the BAAQMD is augmenting through the passage of these proposed new rules. The goal of this proposed rulemaking is to cost-effectively detect and reduce leaks from heat exchangers. The BAAQMD is proposing that these new requirements go into effect on July 1, 2016.

There are currently 34 permitted cooling towers in the San Francisco Bay Area that will be impacted by these new requirements. In the District staff report, the following concerns were expressed: "When heat exchanger leaks occur (from process fluids leaking into cooling water), the volatilization of hydrocarbons and/or Toxic Air Contaminants (TACs) in the contaminated cooling water lead to emissions. Such leaks tend to occur when heat exchanger tube sheets fail or when tubes rupture as a result of corrosion or the use of inferior materials during the exchanger construction process." Emissions from towers, in part, occur when cooling water is entrained in the up-draft, called *drift*. Additionally, emissions from leaks can go undetected for long periods of time.

Elements to be added to Regulation 11, Rule 10 are as follows:

- THC leak monitoring, repair, and minimization requirements for petroleum refinery cooling towers will be incorporated into an existing regulation that was adopted in 1989 to limit hexavalent chromium emissions from all Bay Area cooling towers that were subject to the provisions of the rule. The regulation's description will be modified to include THC emissions from petroleum refinery cooling towers.
- Existing regulations exempt cooling tower emissions provided Best Modern Practices are used. Regulation 11, Rule 10 will define Best Modern Practices and will require refinery staff to take steps to ensure heat exchanger equipment is kept corrosion-free and in good working order, to make visual and odor inspections on a regular basis, to perform surrogate testing, such as residual chlorine measurements every shift, and to track the amount of biocide added to cooling tower water.
- Cooling towers that circulate less than 2,500 gallons per minute of cooling water will be allowed to monitor weekly, and any cooling towers that circulate less than 500 gallons per minute of cooling water will be allowed to monitor once every 14 days.
- The regulation will include a THC concentration standard of 84 parts per billion (ppb) (by weight) when cooling tower water is sampled for lab analysis. The THC concentration standard will be 6 parts per

million (ppm) (by volume) when cooling tower water is monitored by a continuous analyzer or the use of an Air Pollution Control Officer (APCO) approved alternative monitoring method. When the THC standard is exceeded, a leak action response will be required.

- The refinery needs to minimize the leak within 5 calendar days and repair the leak within 21 days.
- For leaks that cannot be repaired within 21 calendar days, the refinery would have to further characterize emissions to meet volatile organic compound (VOC) and TAC limits.
- Regulation 11, Rule 10 would also include detailed recordkeeping requirements.

There will be a number of strategic approaches that facilities can implement to meet the new requirements. Regulated entities may conduct daily water sampling. There is also the potential to install and operate a "continuous analyzer." Additionally, the facility may elect to implement an "APCO approved alternative monitoring method." As is true with all new regulations, the facilities that are out in front in terms of strategic planning will weather a "maelstrom" of new requirements and turn the change into a potential competitive advantage. Those facilities that delay planning and implementation will find themselves playing catchup.

The latest version of Regulation 11, Rule 10 is found at the following URL: <http://www.baaqmd.gov/~media/files/planning-and-research/public-hearings/2015/102215/rg1110-pdf.pdf?la=en>

*Yorke Engineering, LLC specializes in air quality and environmental consulting for stationary and mobile sources, including dispersion modeling, health risk assessments, permitting, emission inventories, air quality compliance systems, etc. Yorke Engineering has assisted over 500 customers, including a wide variety of industrial facilities and government organizations throughout California.*