



BAY AREA
AIR QUALITY
MANAGEMENT
DISTRICT

REQUEST FOR COMMENTS

May 29, 2013

TO: INTERESTED PARTIES
FROM: EXECUTIVE OFFICER / APCO
SUBJECT: **REQUEST FOR COMMENTS - PROPOSED AMENDMENTS TO
REGULATION 9, RULE 10: NO_x AND CO FROM BOILERS,
STEAM GENERATORS & PROCESS HEATERS IN PETROLEUM
REFINERIES**

Bay Area Air Quality Management District staff requests public review and comments on draft amendments to **Regulation 9: Inorganic Gaseous Pollutants, Rule 10: NO_x and CO from Boilers, Steam Generators and Process Heaters in Petroleum Refineries**. Comments relating to the proposed amendments should be addressed to Julian Elliot, Senior Air Quality Engineer, 939 Ellis Street, San Francisco, CA 94109. Comments may also be submitted by e-mail to jelliot@baaqmd.gov. **Comments are requested by close of business, Friday, June 21, 2013.**

BACKGROUND:

The Air District is considering amendments to Regulation 9, Rule 10 that would set a voluntary, alternative NO_x emission limit that a refinery could elect to use instead of the current emission limit that applies to most refinery heaters that were in service in 1994 ("pre-1994 heaters"). The Air District is also considering amendments that would require more continuous emission monitoring systems (CEMS) to be used on refinery heaters subject to this rule.

The current NO_x emission limit is a daily, average emission rate limit expressed as 0.033 pounds of NO_x per million BTUs of collective heat input (0.033 lb/MM BTU) at pre-1994 heaters. The proposed alternative limit would set a daily NO_x emissions limit based on the mass of NO_x emitted from the pre-1994 heaters (ton/day). Each refinery would need to choose whether to have its entire population of pre-1994 heaters be subject to the existing emission rate limit or instead have them be subject to a mass limit.

Like the existing emission rate limit, the proposed mass limit still would be a refinery-wide limit as opposed to a source-specific limit, which will allow refinery operators to retain flexibility over their operations. The mass limit will be different for each refinery choosing this alternative compliance method. To calculate the mass limit for any refinery under the proposal, a refinery operator would determine the “baseline NOx daily emissions” from each pre-1994 heater (referred to as a “device” in the proposed rule) using actual emissions data from a “baseline” period, which is discussed in more detail below. All of the devices taken together would then be subject to a daily NOx mass limit that is equal to the sum of the baseline NOx daily emissions for all of the devices. Provisions in the proposed rule allow for emission reduction credits (ERCs) to be used in place of interchangeable emission reduction credits (IERCs) during the baseline period, or to be used in place of emission reductions that would have been required under the existing rule for any project for which a permit application has been submitted.

A refinery’s daily NOx mass limit (which as mentioned above is equal to the sum of the baseline mass emissions from each device) would be reduced whenever a device is no longer subject to this rule (for example, if the device is modified or taken out of service). The amount of the reduction is the baseline NOx daily emissions for that device.

On October 26, 2012, District staff posted a workshop notice, draft amendments to Regulation 9, Rule 10 and a workshop report. These materials are available at: <http://www.baaqmd.gov/Divisions/Planning-and-Research/Rule-Development/Rule-Workshops.aspx>. Staff presented and discussed these amendments at a workshop on December 5, 2012. Based on comments received at and subsequent to the workshop, staff has made some changes to the draft rule amendments.

DIFFERENCES BETWEEN 2012 WORKSHOP DRAFT AND CURRENT PROPOSAL:

The first change from the workshop draft is to allow the baseline NOx contribution to the daily NOx mass limit for all devices to be calculated using data from any ten (10) days during a recent baseline period. As a general rule, the baseline period will be the three (3) years immediately preceding the application date to use the alternative standard, but staff has also added a provision that authorizes the Air Pollution Control Officer to consider data from a different period if that other period supplies more representative data.

The second change to the workshop draft is to amend the monitoring provisions for NOx emissions in the rule. The existing rule requires compliance with the emission rate limit to be demonstrated using either CEMS data or a parametric monitoring system commonly referred to as the “NOx box.” A CEMS is an automated, high-frequency sampling system that is widely considered the most accurate monitoring method available and is strongly preferred by the District, and the workshop draft required refineries opting for the mass limit to monitor all their devices subject to the rule with CEMS. However, to make CEMS coverage more consistent among the Bay Area refineries, to improve the enforceability of the rule and to reduce the

administrative burden of regulating non-CEMS monitoring systems, the District is now proposing to expand CEMS coverage at all Bay Area refineries. The new proposal is to require at least 95% of the NOx mass emissions to be monitored with CEMS, regardless of whether the refinery is operating under the existing emission rate limit or the proposed alternative mass limit. For the small subset of pre-1994 heaters that are not equipped with CEMS at a refinery (if any), the District is proposing to eliminate the NOx boxes and simplify the monitoring and calculations required to demonstrate compliance with the rule.

The third change to the workshop draft is the addition of a requirement for refinery operators to provide information related to the design and NOx emission rate of burners in heaters subject to Regulation 9, Rule 10. Such data will be useful for assessing opportunities for further NOx emission reductions at these heaters, particularly as AB 32 requirements are implemented.

COMMENTS AND FURTHER INFORMATION:

The revised draft amendments are available on the Air District website: <http://www.baaqmd.gov/Divisions/Planning-and-Research/Rule-Development/Rule-Workshops.aspx>. The October 26, 2012 draft amendments and a workshop report are also available for reference. For additional information or to submit comments, please contact Julian Elliot, Senior Air Quality Engineer, at (415) 749-4705 or via e-mail at jelliot@baaqmd.gov. **Written comments, submitted by U.S. mail or electronic mail, are requested by close of business, Friday, June 21, 2013.**