



BAY AREA
AIR QUALITY
MANAGEMENT
DISTRICT

REQUEST FOR COMMENTS

December 23, 2005

TO: INTERESTED PARTIES

FROM: EXECUTIVE OFFICER / AIR POLLUTION CONTROL OFFICER

SUBJECT: REQUEST FOR COMMENTS – PROPOSED AMENDMENTS TO REGULATION 12, RULE 12: FLARES AT PETROLEUM REFINERIES; LOWER THRESHOLD for CAUSAL ANALYSIS

Staff of the Bay Area Air Quality Management District is soliciting comments on proposed amendments to Regulation 12: Miscellaneous Standards of Performance, Rule 12: Flares at Petroleum Refineries. The amendments are intended to require analysis of and submission of information about the causes of some low-volume flaring and the incorporation of prevention measures for these events into the initial Flare Minimization Plans, and to clarify when to determine and report the cause of flaring.

District Regulation 12: Miscellaneous Standards of Performance, Rule 12: Flares at Petroleum Refineries was adopted by the Board on July 20, 2005. It is a new rule intended to reduce emissions from flares at petroleum refineries by reducing the magnitude and duration of flaring events.

This new rule requires each refinery to develop and implement a Flare Minimization Plan (FMP) for each flare subject to the rule; submit the FMP to the District for review and approval, including a provision for public comment; conduct a causal analysis when significant flaring occurs; develop and submit an annual report that summarizes the use of a flare at low flow rates; periodically update the FMP; continuously monitor the pressure and height within the water seal; and operate the flare in accordance with the developed flare minimization plan except for flaring in emergency situations. The initial FMP for each refinery is due August, 2006.

The flare control rule embodies a continuous improvement process focused on reducing all air pollutants from all flaring. A fundamental requirement of the regulation is the investigation to determine primary cause and contributing factors for flaring (causal analysis) in order to develop prevention measures to avoid or minimize flaring. The rule includes two alternate mechanisms for conducting an analysis of the cause(s) of flaring depending on the amount of vent gas flared.

The first provision requires submission of a causal analysis report to the District within 60 days following the end of the month in which the reportable flaring event occurs. A reportable flaring event is defined as any flaring where more than 500,000 scf per day of vent gas is flared. The second provision requires a report to the APCO that summarizes the use of a flare at rates less than 500,000 scf per day where sulfur dioxide emissions are greater than 500 pounds per day. The latter requirement is effective twelve months after approval of the original FMP and annually thereafter. Both provisions require determination of cause, identification of prevention measures and incorporation into the FMP.

These provisions are the subject of the proposed rule amendments. The proposal is to change the annual reporting provision for the flaring events of less than 500,000 scf but greater than 500 lbs sulfur dioxide. The change would require the reporting of this low-volume flaring to occur on the same schedule specified for reportable flaring events, i.e., within 60 days following the end of the month in which the flaring occurs. The reason for the proposed amendment is to ensure that the prevention measures developed from the investigations into lower-volume flaring are incorporated into the initial FMPs. The proposal would also clarify the application of the determination and reporting of cause provision for refineries with cascade and backup systems.

The proposed amendments will affect Section 12-12-208, concerning the definition of a reportable flaring event; Section 12-12-404, concerning the update of FMPs; and Section 12-12-407, concerning annual reports, as follows:

12-12-208 Reportable Flaring Event: Any flaring where more than 500,000 standard cubic feet per calendar day (scfd) of vent gas is flared or where sulfur dioxide (SO₂) emissions are greater than 500 lbs. For flares that are operated as a backup, staged or cascade system, the volume is determined on a cumulative basis; the total volume equals the total of vent gas flared at each flare in the system. For flaring lasting more than one calendar day, each day of flaring constitutes a separate flaring event, except that flaring lasting more than one day may be treated as one flaring event if the owner or operator demonstrates to the satisfaction of the APCO that the cause of flaring is the same for the duration of the flaring event. A reportable flaring event ends when it can be demonstrated by monitoring required in Section 12-12-501 that the integrity of the water seal has been maintained sufficiently to prevent vent gas to the flare tip. For flares without water seals or water seal monitors as required by Section 12-12-501, a reportable flaring event ends when the rate of flow of vent gas falls below 0.5 feet per second. For flares that are designed or can be operated as a backup, staged or cascade system, a reportable flaring event ends when the volume for each flare in the system is less than 500,000 scfd.

12-12-404 Update of Flare Minimization Plans: The FMP shall be updated as follows:

404.1 No more than 12 months following approval of the original FMP and annually thereafter, the owner or operator of a flare subject to this rule shall review the FMP and revise the plan to incorporate any new prevention measures identified as a result of the analyses prescribed in Sections 12-12-401.4, and 12-12-406, and 12-12-407. The updates must be approved and signed by a Responsible Manager.

~~**12-12-407 Annual Reports:** Effective twelve months after approval of the original FMP and annually thereafter, the owner or operator of a flare subject to this rule shall submit a report to the APCO that summarizes the use of a flare at rates less than 500,000 standard cubic feet per day where sulfur dioxide (SO₂) emissions are greater than 500 lbs per day. The summary shall include, but not be limited to, the date and duration, the reason for flaring and any prevention measures considered or implemented.~~

Staff will be receiving comments on the proposed revisions through January 20, 2006.

For comments or questions regarding the amendments, please contact Alex Ezersky, Principal Air Quality Specialist at (415) 749-4650 or aezersky@baaqmd.gov.