



BAY AREA
AIR QUALITY
MANAGEMENT
DISTRICT

PUBLIC HEARING NOTICE

August 13, 2004

TO: INTERESTED PARTIES

FROM: AIR POLLUTION CONTROL OFFICER

**SUBJECT: PROPOSED AMENDMENTS TO REGULATION 8, RULE 8:
WASTEWATER (OIL-WATER) SEPARATORS, and
REGULATION 8, RULE 18: EQUIPMENT LEAKS**

On **Wednesday, September 15, at 9:45 am**, the Board of Directors of the Bay Area Air Quality Management District will conduct a public hearing to consider proposed amendments to Regulation 8, Rule 8: Wastewater (Oil-Water) Separators. The Board will also consider an amendment to Regulation 8, Rule 18: Equipment Leaks, to make it clear that refinery wastewater system components are subject to the proposed standards in Regulation 8, Rule 8, and not to standards in Rule 18. The public hearing will be held in the 7th floor Board Room at the District office, **939 Ellis Street, San Francisco, CA, 94109**.

Refinery wastewater systems exist to separate and process organics entrained in water during the making of petroleum products. Water has many uses in the refining process, including crude oil washing, process unit cooling, component cooling, steam production and vessel cleaning. In the refinery, water containing organics enters into the wastewater collections system through drains in the process blocks. These drains feed a network of pipes that transports the wastewater in a segregated system to an onsite treatment facility. Along this piping network there are a series of manholes and junction boxes.

Wastewater gathered by the collection systems at each refinery is routed to wastewater treatment. The refinery wastewater treatment system generally consists of oil/water separation, dissolved nitrogen or dissolved air flotation units, and biological treatment. There can be other steps in refinery wastewater treatment trains including flow equalization, pH balancing, and chemical and nutrient addition.

The potential for VOC emissions from wastewater collection systems occurs when organic liquids are entrained in waters used in refinery processes. These organic liquids are volatilized during transport to an onsite wastewater treatment system by exposure to high temperatures and turbulence in the transport structures (pipes, manholes, junction boxes, sumps and lift stations). The emitted vapors collect in the headspaces of these transport structures and are passively vented to the atmosphere through uncontrolled system openings.

Currently, Regulation 8, Rule 8 controls emissions from the wastewater system. It limits organic emissions from oil/water separators and dissolved air flotation units at refinery, chemical and other plants throughout the Bay Area. It also limits emissions from sludge dewatering and slop oil vessels.

Summary of Regulatory Proposal

The proposed amendments to Regulation 8, Rule 8:

- Expand Regulation 8, Rule 8 to encompass refinery wastewater collection systems;
- Impose a 500 ppm leak standard on wastewater collection components (process drains, trenches, manholes, junction boxes, reaches, sumps and lift stations);
- Require refineries to install controls on components found leaking in excess of the 500 ppm standard;
- Require refineries to perform inspection and maintenance programs on wastewater components under the regulation; and
- Require accurate and timely documentation of maintenance performed at facilities to ensure compliance with the 500 ppm leak standard.

This proposal is the result of Future Study Measure 9 in the 2001 Ozone Attainment Plan. A Technical Assessment Document prepared by District and CARB staff deals with emissions from the collection portion of the wastewater system. This assessment recommended an expansion of Regulation 8, Rule 8 to encompass refinery wastewater collection systems. Throughout this process District staff staged numerous technical working group meetings that included industry, environmentalists, and the Regional Water Quality Control Board. The development of the current emissions estimate was greatly dependant on the co-operation staff received from the refineries. This collaborative technical process has been highly successful and is presently continuing in an effort to assess emissions from the refinery wastewater treatment systems.

The proposed amendments to Regulation 8, Rule 8 would result in a reduction of VOC emissions of at least 2.1 tons per day. The estimated cost-effectiveness to reduce emissions from drains, manholes, and junction box vents ranges from \$1900 to \$4200 per ton of VOC reduced. This is within the range of cost-effectiveness determined for other VOC control measures adopted by the District. In addition, a socioeconomic analysis and California Environmental Quality Act (CEQA) analysis have been prepared for this regulatory proposal.

The proposed rules, a draft staff report, technical assessment document, California Environmental Quality Act (CEQA) analysis and socioeconomic analysis are available on the District website at www.baaqmd.gov. These materials are also available by request. If you have any questions or comments, please contact Damian Breen, Air Quality Specialist II at (415) 749-5041 or dbreen@baaqmd.gov.