UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105

August 2, 2004

Mr. Steve Hill
Bay Area Air Quality Management District
939 Ellis Street
San Francisco, CA 94109

Dear Mr. Hill:

We appreciate the District's cooperation with us regarding the Bay Area refinery permits. In addition to the issues included in our letter dated July 28th, we have prepared another list of additional issues that we would like to discuss further (please see enclosure). We recognize that the District has made many of the changes that we requested in our prior comment letters, and we look forward to continuing to work with you regarding the issues that we have not yet resolved. Please note that we may have additional issues to discuss with you after we review the clarifying information that we have requested regarding several issues. If you have any questions concerning this letter, please contact me at (415) 972-3974 or Ed Pike of the Permits Office at (415) 972-3970.

Sincerely,

original signed by Laura Yannayon for

Gerardo C. Rios
Chief, Air Permits Office

Enclosure

General Comment on Flares

1) Unenforceable Control Efficiencies for Flares (Response #15 , 16, 17 on District list A[1]):

Several flares and flare gas compressors at the Shell and Chevron refineries[2] are subject to federally enforceable control efficiency requirements, ranging from 90% to 98.5%. Several control requirements are pursuant to exemption criteria for organic compound limiting rules, others are pursuant to BACT requirements, and one prohibits marine loading unless organic compounds are reduced by 95%. With the exception of the control efficiencies imposed pursuant to BACT, the SIP rules contain underlying monitoring requirements, but the monitoring cannot be applied to flares due to technical reasons. The original permits in which the BACT requirements were imposed contain no underlying monitoring requirements.

In the revised SOBs the District concluded that the proper operation of a properly designed flare provides strong assurance that the required control efficiencies will be achieved. The District concluded that proper operation includes flow rate below design capacity, sufficient fuel value, and continuous presence of a flame. The District added monitoring for the proper operation of these flares, but it is only enforceable by the District. Because these efficiencies are federally enforceable, federally enforceable monitoring to assure compliance is necessary.

In addition, the District has not conducted a design review of the flares to ensure that the flares are designed correctly, that is, designed to meet their required control efficiencies; rather they are relying on "the fact that OSHA requires that flare system design basis and testing information be kept at the facilities and that flares be operated consistent with the design basis."

Proposed Resolution:

- Designate the requirements for proper operation of the flares and associated recordkeeping as federally enforceable.
- Conduct a design review of all flares subject to control efficiencies to ensure that they are designed to meet the required control efficiencies if operated properly. This information should be available if OSHA requires this information to be kept onsite.

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[1]Note: these issue numbers correspond with the issue numbers that the District assigned based on our 4/14/04 letter regarding Tesoro, Chevron, and Valero.

[2]Because we do not know how the permits have been changed since the draft versions were noticed in March, this comment applies to any flare with a federally enforceable control efficiency requirement.

Shell

2) Extensive Permit Shields (Response #89 on District list B[3]):
The draft revised permit contains broadly written permit shields from twenty-three regulations in Table IX A-10 with little or no information about the applicability determinations for those requirements. They include:

- EPA's hazardous waste incineration MACT (the facility holds a CAL DTSC permit to burn hazardous waste)
- six federal regulations that apply to benzene
- six federal regualtions that apply to SOCMI operations
- two federal regulations that apply to gasoline distribution

Even if the shields can be justified for the existing operations, the permit also lacks conditions to prevent the facility from triggering those requirements though operational changes or the addition of new equipment. The District has stated that a new applicability determination would be conducted if new equipment were added. However, the shield would exempt these changes from the applicable requirements unless and until the permit was updated.

Proposed Resolution:

- Delete the Table IX A-10 shields unless the District provides a specific applicability determination for each one, and adds the determination or a concise summary to the permit along with permit conditions to assure that Shell cannot trigger the shielded requirements.

3) Permit Shield from Refinery Flare Monitoring Rule (Response #134 on District list B):
The District has adopted a flare monitoring Rule (Rule 12-11) that is included in your attainment plan, but has not yet been submitted to EPA for inclusion in the State Implementation Plan. The District has included in the draft permit federally enforceable permit shields from 12-11 for several flares (see Table A-13) without providing a justification in the permit such as a restriction that the units can only burn exempted gases. The permit must contain a condition that limits the flares to burning exempt gas to justify a shield.

Proposed Resolution:

- Justify the shields by showing that the permit contains federally enforceable conditions to restrict the flares to exempt gases.

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[3]Note: these issues numbers are based on the numbers that the District assigned based on our Conoco and Shell comments from 10/30/04, which we reiterated on 4/14/04. The District has prepared draft responses to these comments.

- Mark the shield "state-only" with a sunrise provision that it will become federally enforceable upon SIP approval of Rule 12-11.

4) Verification of Exemptions from NSPS Subpart J Limits (Response #45 on District list B):

The Title V permits need to require that refineries vent routine releases from flares to a control device for flares that would be otherwise subject to NSPS J if they were used for routine releases. This will ensure compliance with the NSPS J exemption. See the flare discussion from the first item in the enclosure to our July 28, 2004 letter, which did not cover this refinery but raised the same issue for other flares, for more information.

5) NSPS Exemption (Response #46 on District list B):

Table VII-AG of the draft permit includes an option for a relaxed NSPS Subpart J (40 CFR 60.102) PM limit for the CCU. The permit does not clearly spell out the criteria for the relaxed limit that applies when a boiler is burning "auxiliary fuel," nor is it clear that the increase in emissions (in lbs of PM/MMbtu) applies only to the BTU contributed by the auxiliary fuel. The District has stated that including all limits and applicable requirements would result in an excessively long permit, and that the regulation contains the complete requirements.

Proposed Resolution:

- Because the permit condition could be read to be less strict than the NSPS, the District must clearly include the entire option for a higher PM permit limit based on the combustion of "auxiliary fuel", or remove the less strict limit.
- In addition, a correction to the citation in the permit in necessary to refer to the NSPS emission limit.

6) Testing and Monitoring for Sulfur Removal Units (Response #102 on District list B):

The District's draft permit revision would delete from Table VII-AH the annual testing for 95% H2S removal efficiency that was previously added to permits as periodic monitoring. This is apparently an unintended mistake because the draft response to an EPA comment states that the District has addressed our concern that additional operational monitoring may be justified, which would be in addition to the annual source testing.

Proposed Resolution:

- The annual testing must be retained, as the District appears to have intended.

7) Throughput limit - (Response #112 on District list B):

The District has included a permit condition (Section VI condition #18618) that is unlike the other refinery permits because it could be interpreted to imply that the throughput limits can be used to avoid triggering NSR based on Bay Area rule 2-1-234.3. This language is inappropriate because the Permitting SIP rule 2-1 does not contain these provisions and a source cannot rely on

their prior throughput capacity, rather than actual emissions, to avoid federally-required New Source Review permitting under the State Implementation Plan. Other permits with these throughput limits clearly state that they are merely reporting requirements, and do not create a presumption either way.

> "The following throughput limits are based upon District records at the time of MFR permit issuance. Exceedance of those limits for which Regulation 2-1-234.4 was the identified basis are not a violation of the permit if the operator can, within 60 days, provide documentation demonstrating the throughput limit should be higher, established in accordance with 2-1-234.3, and the excess throughput complies with the new limit. Exceedance of those limits which have other permit conditions or application information as the basis are a violation of Regulation 2-1-307 immediately upon exceedance of the limit... (basis: Regulation 2-1-234.3, Regulation 2-1-307)"

The general permit conditions state in section J that:

> "Exceedance of this limit does not establish a presumption that a modification has occurred, nor does compliance with the limit establish a presumption that a modification has not occurred."

Proposed Resolution:

- Remove the language in condition 18618 that conflicts with section J, or add a statement at the end of the second sentence that "nor can the limits be used to create a presumption that a modification has not occurred."

Conoco:

8) Federal Enforceability (Response #8 on District list B):

The District has responded to an EPA comment that these prior permit conditions (condition 1694) limiting throughput will be federally enforceable only if EPA can show that they are derived from an underlying federally enforceable condition. In this case, the District is proposing to change existing federally enforceable throughput limits to not federally enforceable. The permit does not explain why the conditions should not be federally enforceable.

Proposed Resolution:

- Leave conditions as is (i.e. federally enforceable) at this time until the District can investigate and work with EPA to determine whether they can be appropriately changed to not federally enforceable.

9) Permitting the Cooling Towers (Response #11 on District list B):

The permit does not contain any applicable requirements for the cooling towers at the facility.

The District has indicated that Conoco has not yet submitted a Title V permit application for these units. We believe that a compliance schedule is necessary for these units.

Proposed Resolution:

- Include a compliance schedule requiring the refinery to submit a permit application.

10) Periodic Monitoring for Pressure Vessel Depressurization (Response #25 on District list B):

EPA commented that the District must add periodic monitoring for permit limits based on SIP Rule 8-10, which requires the evacuation of vessels to a specific vapor pressure prior to opening them to the atmosphere. The District response to EPA's comments notes that the District rule was revised in January to fill this gap, but the response does not say that the District will require monitoring in the Title V permit.

Proposed Resolution:

- Add the local rule requirements as federally enforceable permit conditions, or add similar monitoring as periodic monitoring.

Tesoro

11) Allowing Carbon Monoxide Increases based on Modeling (Response #84 on District list A).

The permit contains language that appears to authorize CO increases based on modeling instead of a full PSD application that includes BACT. For instance, see condition 4357, section 12(L), which appears to be federally enforceable.

Proposed Resolution:

- Remove or clarify this section of the permit.

Bay Area Refinery Wastewater Units

Shell Wastewater

12) New Source Performance Standard Appplicability for oil-water separators, including slop oil vessels at Shell and Tesoro (Response #114 on District list B)

We commented that NSPS Subpart QQQ applies to the facility, and would also apply to the oil-water separators. The District responded to our comment by noting the sections of the permit that contain requirements for these units without stating whether they will be revised to include Subpart QQQ.

We also noted that slop oil vessels are subject to Subpart QQQ, and the District did not respond to this comment. In contrast, for the Tesoro refinery, the District stated that it intends to determine whether slop oil vessels and sludge dewatering exist at the Tesoro plant in revision one (response #118 from list A). For Chevron the District reviewed whether slop oil vessels are present (response #166 from list A) and reviewed the applicability of the SIP and NSPS limits in a 7-26-04 email. (Note that our July 28, 2004 letter also includes a comment on NSPS subpart QQQ).

Proposed Resolution:

- Add the Subpart QQQ requirements to the permit.

13) NESHAP Applicability for Biotreaters (Response #118 on District list B)

The District response states that "Biotreaters are not affected Subpart FF benzene waste NESHAP units." The District appears to assume that biotreaters are categorically exempt. Instead, they are regulated (they are included in the definition of "Wastewater treatment systems in 40 CFR 61.342) unless a refinery shows that they are exempt due to source-specific circumstances.

Proposed Resolution:

- Add the NESHAP requirements to the permit unless the refinery shows a source-specific reason why it is exempt.

Tesoro Wastewater

14) NESHAP subpart FF requirements for specific units (Response #122 on District list A)

We asked the District to identify what units are subject to the NESHAP Subpart FF requirements. The District response states that they will work with the facilities at some unspecified later date. We have found that the NESHAP will be difficult to enforce until the permit identifies which requirements apply to each unit.

Proposed Resolution:

- Add the NESHAP requirements to each unit to which it applies, or at least identify what units are subject now and add the specific requirements during the next permit revision.

15) Monitoring for Control Device(s) (Response #124 on District list A)

We asked the District to include monitoring for control devices used for closed-vent systems that control wastewater systems under NSPS Subpart QQQ. The permit includes regulatory requirements that apply in general to closed-vent systems, but does not appear to require monitoring for any control systems for these vents and it also does not contain sufficient information to determine whether they are used at the facility. The District responded that "The District will consider incorporating the suggestions in Revision 2."

Proposed Resolution:

- Determine now whether any existing units require monitoring, and include monitoring in the permit if it is missing.
- Add additional specific parameter value(s) or range(s) later if more information is necessary to determine the specific value(s) or range(s).