

September 17, 2002

*By Electronic Mail & U.S. Mail*

Terry Carter  
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Re: Comments Pursuant to BAAQMD Regulation 2-6-412 on Proposed Major Facility Review Permit – Tesoro Refining and Marketing Company – Facility #B2758 & #B2759

Dear Mr. Carter:

## **A. Introduction**

We are writing to comment on behalf of Our Children's Earth Foundation ("OCE" or "Commenters"), pursuant to BAAQMD Regulation 2-6-412, on the Bay Area Air Quality Management District's ("District" or "BAAQMD") proposed Major Facility Review Permit for the Tesoro Refining and Marketing Company – Facility #B2758 & #B2759 ("Avon Refinery").

OCE is an organization dedicated to protecting the public, especially children, from the health impacts of pollution and other environmental hazards and to improve environmental quality for the public benefit. OCE has numerous members who live and work in the San Francisco Bay Area.

OCE would first like to thank the District for its significant effort to work with the community to provide requested supporting documentation, compliance reports and emission inventories for the refinery. While Commenters did not ultimately obtain from the District some of the important documents necessary for the Title V permit review, we still appreciate the staff and Executive Officer's efforts to facilitate the public records process.

The proposed Title V permit for the Avon Refinery ("Title V permit" or "draft permit") cannot be finalized in its current form because of numerous problems with both the content of the permit, including the inaccuracy of some of the applicable requirements and lack of compliance plans, and the insufficiency of the statement of basis that accompanies the permit. In addition, the Title V permit cannot be finalized because the permit application, upon which the permit conditions are based, contains many errors and is missing information required by federal Title V regulations. We discuss these and other concerns in greater detail in the following sections.

Further, in reviewing this permit Commenters have identified a number of issues that are not necessarily federal or Title V issues. We nevertheless discuss these issues because our suggestions, if implemented, should improve the permit. These comments are contained in section D of this letter.

## **B. General Requirements**

The Avon Refinery is subject to the operating permit requirements of Title V of the federal Clean Air Act (42 U.S.C. § 7661, *et seq.*), the Code of Federal Regulations (40 C.F.R. Part 70), and BAAQMD Regulation 2, Rule 6 because it is a major facility as defined by BAAQMD Regulation 2-6-212. The Avon Refinery is a major facility because it has the “potential to emit,” as defined by BAAQMD Regulation 2-6-218, more than 100 tons per year of a regulated air pollutant. Major Facility Review Permits (“Title V permits”) must meet the requirements of 40 C.F.R. Part 70 and BAAQMD Regulation 2, Rule 6. As required by 40 C.F.R. Part 70, a Title V permit must contain all applicable requirements, monitoring requirements, recordkeeping requirements, and reporting requirements.

The Avon Refinery can process approximately 170,000 barrels per day and produces gasolines, kerosenes, and diesels. *See* Permit Evaluation & Statement of Basis for Major Facility Review Permit, Tesoro Refining and Marketing Company, Facility #B2758 & #B2759 (hereinafter “Statement of Basis”), p. 3; *see also* BAAQMD 2001 Annual Compliance Report for Ultramar Corporation, now owned by Tesoro Refining and Marketing Company, p. 1, available at <http://www.baaqmd.gov/permit/t5/NOTICES/B2758Compliance.pdf>. The Avon Refinery emits more than 11,000 tons per year of criteria pollutants, including nitrogen and sulfur oxides, particulate matter, and volatile organic compounds, and more than 53 tons per year of hazardous air pollutants.<sup>1</sup>

## **C. Comments on the Proposed Permit, Statement of Basis, and Compliance Report**

### **1. Comments on the Draft Permit, Permit Application and Agency Process as to Permit Form, Procedure, Incomplete Disclosures and Omissions**

#### **a. The Permit Contains Numerous Incomplete or Missing Designations on Federal Enforceability**

A Title V permit must designate whether each provision is a federally enforceable applicable requirement. *See* 40 C.F.R. § 70.6(b). The proposed permit is incomplete because numerous provisions of the permit do not indicate whether they are federally enforceable.

For example, Table II-B-Abatement Devices contains limits and operating conditions for various pollution control equipment, but this table contains no information on the federal enforceability of any of these provisions. *See* Title V Permit, pp. 22-29. In addition, starting on page 157 of the permit and continuing through page 495, the vast majority of the table entries in the column titled “Federally Enforceable (Y/N)” in Table IV are left blank.

The draft permit cannot be finalized until the requirements of 40 C.F.R. § 70.6(b) are met.

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<sup>1</sup> California Air Resources Board (“CARB”) October 8, 2000 California Emission Inventory Data, available at <http://www.arb.ca.gov/emisinv/disclaim.htm>.

**b. The District's Permit Fails to Include Elements Essential to a Title V Permit**

The District's draft permit for the Avon Refinery is missing elements that are essential for adequate review of the permit.

The following Permit Conditions contain references to Appendices and Tables, all of which are missing from the draft permit:

- The Statement of Basis on page 8 contains a reference to “sub-table IV-BB and VII-BB,” but a thorough search of the permit reveals no such tables.
- Permit Condition #4357 contains references to Tables A, A-1, A-2, (Title V Permit, p. 511) and states that the Tables are located in the Appendix to the conditions. Permit Condition #8077 contains similar references (Title V Permit, pp. 543, 550), but these tables are not included in the permit. Further, Permit Condition #878 on page 509 of the permit references Appendix B which is not included in the permit.
- Permit Condition #4357(4)(D) on page 517 of the permit references Table D in the Appendix to the Conditions which is not included in the permit.
- Permit Condition #4357(8)(C) on page 519 of the permit references Table E in the Appendix to the Conditional Permit which is not included in the permit.
- Permit Condition #4357(12)(H) on page 522 of the permit references Table E in the Appendix to the Permit which is not included in the permit.
- Permit Condition #8077(B)(4)(D) on page 548 of the permit references Table D of the Appendix to these Conditions which is not included in the permit.
- Permit Condition #8077(B)(5)(A) on page 548 of the permit references Tables B & C of the Appendix to these Conditions which are not included in the permit.
- Permit Condition # 12016 on page 580 of the permit references Appendix B of the Engineering Evaluation Report which is not included in the permit.
- Permit Condition # 12016-9.11 Summary of Refinery Cap Revisions on page 582 of the permit references Appendix B, Tables B-1 and B-2 which are not included in the permit.
- Table VII-A, starting on page 645 through page 659, contains the statement “See flowsheet to determine Monitoring Requirements.” The referenced flowsheet is not included in the documents released by the District. The public is therefore unable to review and comment on the monitoring requirements for boilers, heaters and furnaces. If the reference to the flowsheet is somehow intended to be a reference to Appendix B of the Statement of Basis, BAAQMD Policy Memorandum on NO<sub>x</sub>, CO, and O<sub>2</sub> Monitoring, the connection must be made explicit in the Table, and Appendix B should be rewritten in such a manner so as to be an enforceable requirement.
- Portions of Table VII are unfinished. Page 647 and 648 of the permit contain highlighted areas and placeholders where Permit Condition references are missing. Until these pages of the permit are finalized, Commenters are unable to even review or submit comments on this section of the permit.

Commenters requested most of the tables listed above from the District, however, the District has yet to provide these tables to us.

The Source List in Table II-A identifies S-810 as a “Coker Pile Loader System” but there is no listing in the permit for a petroleum coke pile source and no federally enforceable requirement for a fugitive dust control plan for such a petroleum coke stock pile.

All applicable requirements, including the tables and appendices those requirements refer to, must be included in the draft permit so the public can review and comment on the permit and for incorporation into the final permit. Failure to provide this information means that the public cannot submit meaningful comments and the permit should not be finalized in its current form.

**c. The District Impermissibly Designated Permit Terms as Confidential in the Draft Permit**

Permit Condition #18372 at pages 600 and 601 of the permit imposes physical conditions that limit the potential to emit for furnaces/heaters S-912, S-913, S-916, S-919, S-920, S-921, S-922 and S-926. In specific, the condition limits the maximum and minimum firing rates and oxygen concentrations relating to operation of these furnaces and heaters. Such numerical limitations are apparently claimed confidential and are shown as “XXX” in the permit for each physical parameter in question.

Such treatment is objectionable on two grounds. First, Section 503(e) of the Clean Air Act states that the contents of a Title V permit shall not be entitled to the protection of Section 7414(c) of the Clean Air Act (trade secrets protection). *See* 42 U.S.C. § 7661b(e); *see also* 40 C.F.R. § 70.4(b)(3)(viii).

Second, the limitations in question on maximum and minimum firing rates and oxygen concentrations are physical conditions that limit the potential to emit of the furnaces and heaters in question. Conditions that limit potential to emit of such equipment must be practicably enforceable. Undisclosed conditions are not practicably enforceable by citizens. Thus, the XXX conditions must be disclosed.

**d. Problems with the Permit Application**

First, the information the refinery submitted since the original permit application in 1996 has not been made available to the public as an application update. In some cases there are serious gaps between what the refinery applied for and what appears in the permit. 40 C.F.R. § 70.5(c) requires a facility to submit specific information as a part of its Title V application. Before a Title V permit is issued, 40 C.F.R. § 70.7(a)(1) requires that the permitting authority receive a complete permit application. Commenters cannot find any evidence that the refinery has updated its permit application since 1996, and the District has not explained changes between information provided in the permit application and information that appears in the draft permit. This difference between the information provided in the permit application and information in the permit makes it next to impossible for the public to adequately review the draft permit. The public has no information about any changes at the refinery that may have occurred between 1996 and the present that, for example, could affect the permit’s applicable requirements. Further, the public has no method of knowing whether the draft permit includes all relevant

information because the only reference the public has is an out-of-date and unreliable permit application. Unless the updates to the application are provided to the public with the draft permit, or the District thoroughly explains the differences between the original application and the draft permit in the Statement of Basis, the application and the permit do not meet the minimum requirements of Part 70 and the permit should not be finalized in its current form.

Second, Avon's permit application fails to list insignificant sources at the refinery. *See* Avon Refinery Major Facility Review Permit Application, pp. 1-2, attached as Exhibit A. BAAQMD Regulation 2-6-405.4 requires every source at a facility to be listed in the Title V permit application even if the source is exempt or insignificant. Further, in response to a comment by the California Air Resources Board ("CARB") on the changes to BAAQMD Regulation 2-6, the District stated that it "requires a listing of all sources in the [Title V] permit application (Section 2-6-405.4) whether significant or insignificant." *See* BAAQMD Staff Report, Proposed Amendments to BAAQMD Regulation 2, Rule 6, April 17, 2001, p.12, available at <http://www.baaqmd.gov/ruledev/2-6/r0206sr2.pdf>. This lack of information in the permit application inhibits meaningful public review of the Title V permit.

In that same response to CARB, the District also stated that "we have expanded the requirement for emission calculations in Section 2-6-405.6 to require calculations of emissions from all sources that have significant emissions, even those that are exempt from District permits or excluded from District regulations." The refinery has also failed to submit these emission calculations in its permit application. *See* Exhibit A, pp. 1-2. Furthermore, the refinery has failed to include sources in the application emission inventory that were not in operation during 1993. *Id.*

Third, the permit application cites out-of-date requirements. The application improperly lists insignificant sources of hazardous air pollutants ("HAPs") as sources that emit less than 0.5 tons per year (or 1000 pounds) of HAPs. *Id.* BAAQMD Regulation 2-6-239 provides, however, that a significant source is one that has a potential to emit of more than 2 tons per year of any regulated air pollutant, or more than 400 lbs per year of any hazardous air pollutant.

Fourth, the District failed to require the refinery to submit specific information that is crucial for a determination of all applicable requirements and to identify all emission sources. The following information should have been included in the application:

- Comprehensive information on stack discharge points required under 40 C.F.R. § 70.5(c)(3)(ii) & (vii). This information should include stack descriptors, stack heights and discharge conditions necessary to conduct air quality modeling to ensure attainment and maintenance of National Ambient Air Quality Standards ("NAAQS") and calculation of Prevention of Significant Deterioration ("PSD") increment consumption.
- Detailed information on fuels, fuel use, raw materials, production rates and operating schedules as required by 40 C.F.R. § 70.5(c)(3)(iv).
- Detailed information on air pollution control equipment and compliance monitoring devices as required by 40 C.F.R. § 70.5(c)(3)(v).

- Detailed information on the dates when emission sources and air pollution control equipment were last installed and modified, as required by 40 C.F.R. § 70.5(c)(5). This would enable verification of claims of permit exemption and new source review (“NSR”) compliance for modified sources.
- Detailed calculations, input assumptions to the calculations and sufficiently detailed process production rate and throughput capacities which would be required to support other quantitative aspects of its application in violation of 40 C.F.R. § 70.5(c)(3)(viii). This is a particularly egregious deficiency in light of the fact that the Refinery has submitted emission inventory information showing actual emissions far in excess of the potential to emit information contained in the permit application for several emission units at the Avon Refinery.
- The District has not produced application materials relating to compliance with 40 C.F.R. § 63, Subparts CC and UUU concerning Avon Refinery’s compliance with applicable MACT standards for refinery units.
- Physical aspects of the Avon Refinery’s oily wastewater sewer system (including the bio-oxidation pond and the surge pond) and process related information on internal combustion engines that is necessary to determine with certainty all applicable requirements and emissions, as required by 40 C.F.R. § 70.5(c)(3)(ii).

Until all such information is included in the permit application the Avon permit is inadequate and should not be finalized in its current form.

**e. The Draft Permit Fails to Include an Alternative Operating Scenario in Violation of 40 C.F.R. § 70.4(d)(3)(xi) and 40 C.F.R. § 70.6(a)(9)**

The refinery proposes to operate under an environmental management plan pursuant to Condition # 8077 (Title V Permit, p. 554-555) that amounts to a plan for an alternating operating scenario, but the District never made this material part of the draft permit as required by 40 C.F.R. § 70.4(d)(3)(xi) and 40 C.F.R. § 70.6(a)(9).

**f. The District Failed to Disclose and Treated as Confidential Certain Materials Which Are Integral to the Public Review of the Permit Application and Draft Permit**

Part 70 requires that the permitting authority provide the public with “a statement that sets forth the legal and factual basis for the draft permit conditions.” See 40 C.F.R. § 70.7(a)(5). Because the Statement of Basis for the Avon Refinery Title V permit did not provide all relevant information, Commenters have requested numerous documents and reports from the District to facilitate its permit review. Specifically, in July and August 2002, Commenters requested District files for the Avon Refinery. In July and August 2002, Commenters went to the District offices to review some of these files. During this document review, Commenters discovered that

portions of documents, and in some cases, entire documents, were claimed trade secrets by the refinery, and Commenters were not allowed to review the documents.

Also, on August 12, 2002, Commenters requested the BAAQMD Regulation 9-10 NOx Control Plans for the Avon Refinery. To date, the District has yet to inform Commenters whether the NOx Control Plans or numerous other requested documents will be released to Commenters for review. The NOx Control Plans and other files contain emissions data information, information on construction and modifications, and applicable emission control requirements.

Without release of the documents requested by Commenters or an improvement in the Statement of Basis, adequate review of the Title V permit is impossible. Until the District provides the requested records or produces an adequate Statement of Basis the permit is inadequate and should not be finalized in its current form.

**g. The District's Inclusion of Throughput Limits for "Grandfathered" Sources is Improper**

In the Statement of Basis, the District states that throughput limits apply to sources at the refinery that have undergone new source review ("NSR"). *See* Statement of Basis, pp. 9-10. The District states that it reviewed these throughput limits and considers the limits to be the legally binding "emission levels" for purposes of BAAQMD Regulations 2-1-234.1 and 2-1-234.2.<sup>2</sup> *Id.* at p. 10. For sources without throughput limits, the District has proposed to impose throughput limits to be set forth in the Title V permit. *Id.* We object to the use of the throughput limits as a surrogate for the baseline NSR determination required by NSR requirements because it would thoroughly eviscerate the NSR requirements of the Clean Air Act, which is at the heart of the Act's non-attainment provisions.

First, the throughput limits in the permit are not a reasonably accurate surrogate for any NSR baseline determination. The District states:

"These [throughput] limits are generally based upon the District's review of information provided by the facility regarding the design capacity or highest documented capacity of the grandfathered source. To verify whether these limits reflect the true design, documented, or "bottlenecked" capacity (pursuant to 2-1-234.1) of each source is *beyond the resource abilities of the District* in this Title V process. Moreover, the District *cannot be completely confident* that the facility has had time or resources necessary to provide the most accurate information available in this regard."

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<sup>2</sup> BAAQMD Regulation 2-1-234

Modified Source: Any existing source which undergoes a physical change, change in the method of operation of, increase in throughput or production, or addition which results or may result in any of the following:

234.1 An increase of either the daily or annual emission level of any regulated air pollutant, or an increase in the production rate or capacity that is used to estimate the emission level, that exceeds emission or production levels approved by the District in any authority to construct.

234.2 An increase of either the daily or annual emission level of any regulated air pollutant, or the production rate or capacity that is used to estimate the emission level, above levels contained in a permit condition in any current permit to operate or major facility review permit.

*Id.* (emphasis added).

The discussion of throughput limits in the Statement of Basis indicates that the District has little reliable information regarding these “grandfathered” sources with which to make judgments about modifications or NSR at these sources. Rather than setting baselines that contravene NSR requirements, the District should devote the appropriate resources for the important task of determining the legally correct baseline. The District cannot bypass the required steps for determining the correct baseline merely because of its resource constraints, particularly given the importance of the NSR requirements.

Second, the District improperly proposes to allow potential major modifications without the prerequisite preconstruction permits. The District states that:

“It follows from the presumptive nature of these throughput limits for grandfathered sources that exceedence of these limits is not per se a violation of the permit. Failure to report an exceedence would be a permit violation. However, if an exceedence occurs, the facility would have an opportunity to demonstrate that the throughput limit in fact did not reflect the appropriate limit for purposes of 2-1-234.3. If the facility can demonstrate this, no enforcement action would follow, and the permit would be revised at the next opportunity. It also follows that compliance with these limits is not a ‘safe harbor’ for the facility. If evidence clearly shows that a grandfathered source has undergone a ‘modification’ as defined in 2-1-234.3, the District would consider that a preconstruction review-triggering event, notwithstanding compliance with the throughput limit in the Title V permit. In other words, the protection afforded the facility by complying with the throughput limit in the Title V permit is only as strong as the information on which it was based.”

*Id.* at pp. 10-11.

This scheme eviscerates the NSR requirements of the Clean Air Act and is in violation of BAAQMD State Implementation Plan (“SIP”) Regulation 2-2.

Third, placing these throughput limits in the Title V permit may create an improper presumption of the correctness of the baseline, which may deter future enforcement of NSR violations. *Id.* at p. 10 (referring to the throughput limits as “presumptive”).

Fourth, the District’s reliance on BAAQMD Regulation 2-1-234<sup>3</sup> in deriving these throughput limits is not appropriate. BAAQMD Regulation 2-1-234 is not a SIP provision. The definition

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<sup>3</sup> BAAQMD Regulation 2-1-234

Modified Source: Any existing source which undergoes a physical change, change in the method of operation of, increase in throughput or production, or addition which results or may result in any of the following:

....

2-1-234.3 For sources which have never been issued a District authority to construct, and which do not have conditions limiting daily or annual emissions, an increase of either daily or annual



of “modification” in the SIP-approved version of BAAQMD Regulation 2-2-223<sup>4</sup> should be used for purposes of NSR. Any reliance on provisions not approved by U.S. EPA is inappropriate because the SIP sets forth the EPA-approved new source review program.

Fifth, it is also possible that the District considers these throughput limits as a form of indicative monitoring. Any violation of the throughput limit would be an indication that something has changed at the refinery. If the District is inserting throughput limits in the permit as a form of indicative monitoring, then it should create a separate list of throughput limits for “grandfathered” sources solely based on actual emissions derived from SIP Regulation 2-2. These actual emission throughput limits should be based on the federally enforceable District NSR program and should be designed to indicate increases of actual emissions at grandfathered sources.

Finally, we object to the throughput limits on California Environmental Quality Act (“CEQA”) grounds. CEQA Guidelines state that the issuance of a Title V permit is exempt from CEQA “unless the issuance, modification, amendment, or renewal authorizes a physical or operational change to a source or facility.” See CEQA Guidelines § 15281 & Cal. Pub. Res. Code § 21080.24. Here, if the District uses BAAQMD Regulation 2-1-234 to determine throughput limits on “grandfathered” sources, the limits could be set at levels that are higher than the actual emissions at the source. If the limits are set at these higher levels, there is the potential for an increase in emissions at the refinery which could exceed the CEQA threshold of significance set by the District. Because of this potential, the District’s failure to perform the required environmental review violates CEQA.

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emission level of any regulated air pollutant, or the production rate or capacity that is used to estimate the emission level, above the lowest of the following:

3.1 The highest of the following:

3.1.1 The highest attainable design capacity, as shown in preconstruction design drawings, including process design drawings and vendor specifications.

3.1.2 The capacity listed in the District permit to operate.

3.1.3 The highest documented actual levels attained by the source prior to March 1, 2000.

3.2 The capacity of the source, as limited by the capacity of any upstream or downstream process that acts as a bottleneck (a grandfathered source with an emission increase due to debottlenecking is considered to be modified).

<sup>4</sup> SIP Regulation 2-2-223

Modified Source or Facility: Any existing source or facility which will undergo a physical change, change in the method of operation of, or addition to an existing facility which results or may result in either an increase, of the permitted emission level of a source, of any air pollutant subject to District control, or the emission of any such air pollutant not previously emitted in a quantity which would cause the source to fail an air toxic screening analysis performed in accordance with the current Air Toxic Risk Screening Procedure. Routine maintenance or repair or a change in ownership of itself shall not be considered a modification. Unless previously limited by a permit condition the following shall not be considered changes in method of operation:

223.1 An increase in the production rate if such increase does not exceed the operating design capacity or the actual demonstrated capacity of the facility as approved by the APCO.

223.2 An increase in the hours of operation.

223.3 Change in ownership.

223.4 Use of an alternative fuel or raw material if the source was capable of using such fuel or raw material prior to July 1, 1972, or had received permits to use such fuel or raw material.

**h. The District's Failure to Include the Miscellaneous Operations Rule as an Applicable Requirement is Improper**

The purpose of Regulation 8 is to “reduce emissions of precursor organic compounds from miscellaneous operations.” BAAQMD Regulation 8-2-101. BAAQMD Regulation 8-2-201 defines ‘miscellaneous operations’ as “[a]ny operation other than those limited by the other Rules of this Regulation 8 and the Rules of Regulation 10.” An “operation” is defined in BAAQMD Regulation 1-219 as “[a]ny physical action resulting in a change in the location, form, or physical properties of a material, or any chemical action resulting in a change of the chemical composition, or chemical or physical properties of a material.” This broad definition of “miscellaneous operations” includes the majority or even all processes at the refinery that are not otherwise regulated by other rules in Regulation 8.

The District has nevertheless improperly exempted sources at the refinery from Regulation 8-2 even if those sources are not governed by other rules in Regulation 8. The District states that it has

“determined that the definition of ‘miscellaneous operation’ in Regulation 8-2-201 excludes sources that are in a source category regulated by another rule in Regulation 8, even if they are exempt from the other rule. This is because such sources limited by the terms of the exemption. Thus, for example, a hydrocarbon storage tank that stores liquids with a vapor pressure less than 0.5 psia is exempt from Regulation 8, Rule 5, Storage of Organic Liquids (8-5-117), and is not subject to Regulation 8, Rule 2, Miscellaneous Operations. The policy justification for this determination is that the Board considered appropriate controls for the source category when it adopted the rule governing that category. Part of the consideration includes determination of sources and activities that are not subject to controls.”

*See* Statement of Basis, p. 8.

The District’s reasoning directly contradicts the plain language of Regulation 8-2 as described above. Consistent with that reading, Commenters have been unable find any reference in Regulation 8 rulemaking documents to any District intention to allow exempt sources under rules in Regulation 8 to avoid compliance with the terms of Regulation 8-2’s miscellaneous operation requirements.

In addition, the District’s determination that the miscellaneous operations rule does not apply to the refineries is inconsistent with District practices. The District has applied the miscellaneous operation requirements in Regulation 8-2 to sources that are exempt from other rules in Regulation 8.

The District has required a facility to comply with Regulation 8-2 even if individual sources at the facility are covered by source specific rules for that type of facility in Regulation 8. New United Motor Manufacturing Inc. (“NUMMI”) is governed by Regulation 8-13, which contains requirements for the emission of precursor organic compounds at Light and Medium Duty Motor

Vehicle Assembly Plants. The draft Title V permit for NUMMI nevertheless requires that sources at the facility comply with Regulation 8-2 even when those sources are not covered by Regulation 8-13. *See* NUMMI (Facility #A1438) Major Facility Review Permit, pp. 54, 63, 72, 128, and 149, available at <http://www.baaqmd.gov/permit/t5/PERMITS/PROPOSED/A1438.pdf>.

Until the District incorporates the requirements of Regulation 8-2 into the Title V permit for the Avon Refinery, the permit does not contain all applicable requirements in contravention of 40 C.F.R. § 70.6(b) and should not be finalized in its current form.

**i. The Statement of Basis for the Avon Refinery Permit is Inadequate**

The purpose of a Title V permit is to improve compliance with and enforcement of the Clean Air Act. *See* 57 Fed. Reg. 32250, 32251 (July 21, 1992). To facilitate this purpose, Title V permits record in one document all of the air pollution control requirements that apply to the source. *Id.* A Title V permit is meant to give members of the public, regulators, and the facility a clear picture of what the facility is required to do to comply with the law. According to 40 C.F.R. § 70.7(a)(5), every Title V draft permit must be accompanied by a “statement that sets forth the legal and factual basis for the draft permit conditions.”

While we are pleased that the District produced a Statement of Basis for the Avon Refinery Title V permit, we maintain that the District should prepare a more comprehensive Statement of Basis in order to make its Title V permits more understandable to reviewers and the general public as required by 40 C.F.R. § 70.7(a)(5) and U.S. EPA. *See* letter from Stephen Rothblatt, Air Programs Branch, U.S. EPA to Robert F. Hodanbosi, Chief, Ohio EPA, available at <http://www.epa.gov/rgytgrnj/programs/artd/air/title5/t5memos/sbguide.pdf>. The Avon Statement of Basis needs to contain a description of the facility, including information about production levels, petroleum products produced, and the permitted and exempt sources and their emissions (type and quantity), a list of “grandfathered” sources, a more detailed discussion of the subsumed and streamlined requirements in the permit shield, a discussion of the overall production process including diagrams which show the linkage of the facility process equipment, and the history of the construction and modification of the process systems. Throughout this letter we point out instances where the Statement of Basis is insufficient.

Further, the Statement of Basis seems to indicate that redlined permit conditions in the draft permit represented the current permits to operate at the refinery. *See* Statement of Basis, p. 9. However, after reviewing the comments submitted by Adams Broadwell Joseph & Cardozo on behalf of the Plumbers and Steamfitters Union Local 342, the International Brotherhood of Electrical Workers Local 302, the Boilermakers Union Local 549, and the Laborers Union Local 324, regarding the Title V Permit for the Martinez Refinery (Facility #A0011), we are extremely concerned that the permit conditions in the draft permit do not represent all of the current permits to operate at the refinery. The Statement of Basis should be amended to clearly indicate whether the permit conditions listed in the permit represent all of the current permits to operate at the refinery.

Until the Statement of Basis contains such information the Title V permit fails to meet Part 70 requirements and the permit should not be finalized in its current form.

### **j. The Statement of Basis Should Contain Better Facility, Process, and Equipment Descriptions**

The Statement of Basis needs to include process flow diagrams showing the how the sources, waste streams, and abatement devices at the refinery are connected. Commenters should not have to submit a Public Records Act request, go to the District office, and sift through the voluminous and disorganized permit and plant files in the hope of finding this type of information. In addition, in many cases, this information has been erroneously claimed as a trade secret and thus has not been available at all. On three occasions during the permit review period, we attempted to obtain process flow information by looking through the plant and permit files but were generally unsuccessful. It appears that most process diagrams have been removed from the publicly available files based upon claimed trade secrets.

The Statement of Basis also needs to include a construction and permitting history for all the sources.<sup>5</sup> Without this information it is very difficult for the public to carry out effective permit review.

The need for more detailed facility and process descriptions is magnified by the fact that the District's records for the facility are not well organized and, in some cases, inaccessible. The U.S. EPA recently published a review of public participation in the air permitting program of the Louisiana Department of Environmental Quality ("LDEQ").<sup>6</sup> EPA concluded in that report that, "public participation was often hampered because LDEQ's records were often unorganized, incomplete, missing, or inaccessible. LDEQ issued multiple permits to facilities without providing the public with complete information. As a result, the public was unable to, or had difficulty in accessing complete records needed to effectively review, evaluate and comment on issues." *Id.* at p. 5. Commenters have had very similar problems with the District's permitting program and this has hampered our capacity to effectively review the Avon Refinery permit.

### **k. Responsible Officials and Certifications of Compliance**

The original Tosco Title V application was certified as true and correct under penalty of perjury on July 24, 1996 by Clark S. Wrigley of the Tosco Refining Company. Similarly, a compliance certification statement was also signed on the same date by the same official. However, the Avon Refinery has repeatedly changed hands through a number of corporate owners previously up until the present with its current owner, Tesoro Refining and Marketing Company.

Commenters have asked for all Title V application materials and supplemental submittals. A thorough review of these materials indicates that no document exists which is a sworn declaration by the current responsible official at the Avon Refinery that all submitted items in the current version of the application (as amended and subsequently supplemented) are true and correct and, similarly, that the facility has been maintained in continuous compliance with all

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<sup>5</sup> See letter from Stephen Rothblatt, Air Programs Branch, U.S. EPA to Robert F. Hodanbosi, Chief, Ohio EPA, available at <http://www.epa.gov/rgytgrnj/programs/artd/air/title5/t5memos/sbguide.pdf>.

<sup>6</sup> Available at [http://www.epa.gov/oigearth/ereading\\_room/2002P00011.pdf](http://www.epa.gov/oigearth/ereading_room/2002P00011.pdf).

requirements since the submittal of the original application. The District should not issue a Title V permit to the refinery until its responsible official provides such a written, signed and sworn certification statement and update of the compliance certification pursuant to BAAQMD Regulation 2-6-405.9. BAAQMD must not rely on certifications by past responsible officials who are not even employed by the current refinery owner.<sup>7</sup>

Further, as required by BAAQMD Regulation 2-6-409.10, the refinery must certify that it will continue to comply with all current and future applicable requirements. However, the refinery states that is unable to certify compliance with all terms and conditions of the draft permit. *See* July 26, 2002 letter from Tesoro Refining and Marketing Company to Steve Hill, BAAQMD, attached as Exhibit B. The letter states that the compliance representation the refinery is submitting “does not include new monitoring, recordkeeping, and reporting requirements and/or test methods included in the draft Title V Operating Permit that are not currently required by permit conditions, Bay Area Air Quality Management District regulations or federal regulations. In addition, this compliance representation does not include any new emission limitations, standards, or work practices that may be included in the draft Title V Operating Permit.” *Id.* Until the refinery can properly certify compliance under applicable BAAQMD Regulations and Part 70, the Title V permit is deficient and should not be finalized in its current form.

### **I. Compliance Report**

In general, the compliance report for the Avon Refinery<sup>8</sup> represents a significant improvement over compliance reports that the District has provided in the past for other facilities. Particularly useful, from the perspective of public review, are the analyses of trends in complaints, NOVs, and episodes over time. However, the District only used 3 years of data to carry out this analysis. We believe that a 5-year review is necessary to adequately characterize violations occurring at the facility. Indeed the compliance report for the Martinez Refinery (Facility #A0011) utilizes 5 years of data.<sup>9</sup> We recommend that the District consistently use a five-year review period as the minimum standard for these reports, particularly where there are continuing or recurrent violations.

The compliance report for the Avon Refinery indicates that total complaints between 1999 and 2001 ranged between 40 and 75 per year. In 1999, 2 complaints were confirmed. There were two confirmed complaints in 2000 and 2001. For this information to be most useful to reviewers, the District should also report the number of complaints that it attempted to confirm.

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<sup>7</sup> Note that in a subsequent section Commenters show that actual reported emissions have vastly exceeded potential to emit emissions contained in the original 1996 application, so it would be impossible to certify the truthfulness of that information with a supplemental submittal concerning potential to emit of a number of emission sources at the Avon Refinery.

<sup>8</sup> *See* BAAQMD 2001 Annual Compliance Report for Ultramar Corporation, now owned by Tesoro Refining and Marketing Company, available at <http://www.baaqmd.gov/permit/t5/NOTICES/B2758Compliance.pdf>.

<sup>9</sup> *See* “Annual Compliance Report 2001, Martinez Refining Company, Plant #11, Martinez, California,” available at <http://www.baaqmd.gov/permit/t5/NOTICES/a0011compliance.pdf>.

For example, the small number of confirmed complaints from 1999 to 2001 could indicate that the refinery is complying with all applicable requirements. The low number of complaints could also indicate, however, that the District is not allocating enough resources to confirm complaints. Nonetheless, the consistent pattern of complaints, whether confirmed or unconfirmed by the District, provides a reasonable indication that the refinery is creating an ongoing nuisance for surrounding communities.

Where the District is unable to confirm complaints because of the transient nature of the incidents, then better methods for confirming complaints must be developed. This should include providing the community with additional ways to verify complaints themselves.

Further, based upon the District's three-year analysis, the refinery regularly experiences various types of episodes which have increased in frequency since 1999. In fact, while only 29 episodes occurred in 1999, 66 occurred in 2000 and 76 occurred in 2001. There is no evidence that the number of yearly episodes is decreasing over time. Indeed, the 2002 Update Compliance Report indicates that emission excesses continue to occur at a rate similar to 2001. *See* BAAQMD Update Compliance Report, January 1, 2002 to June 30, 2002 for the Tesoro Refining and Marketing Company, p. 4, attached as Exhibit C.

According to 40 C.F.R. § 70.6 (a), “[e]ach permit issued under this part shall include the following elements: (1) Emission limitations and standards, *including those operational requirements and limitations that assure compliance with all applicable requirements at the time of permit issuance.*” (Emphasis added). Based upon these federal requirements and considering the ongoing level of non-compliance demonstrated by the facility, the District needs to place additional operational and monitoring requirements into the permit that will guarantee a dramatic decrease in the yearly number of episodes. This will require, for example, the implementation of new or modified maintenance programs for process, abatement, and monitoring equipment, additional reporting requirements, and the installation of improved monitoring devices.

### **m. Assuring Compliance**

A Title V permit must “assure compliance” with all applicable requirements. *See* 40 C.F.R. § 70.1(b). Specifically, 40 C.F.R. § 70.7(a)(1)(iv) provides that a permit may only be issued if “the conditions of the permit provide for compliance with all applicable requirements.” The Avon Title V permit does not assure compliance for the following reasons.

The status of Avon's current compliance and future ability to comply with all applicable requirements is unclear. The District's 2001 Annual Compliance Report for the Avon Refinery describes Avon's overall compliance in 2001 as ‘good.’ *See* BAAQMD 2001 Annual Compliance Report for Ultramar Corporation, now owned by Tesoro Refining and Marketing Company, p. 6, available at <http://www.baaqmd.gov/permit/t5/NOTICES/B2758Compliance.pdf>. While Notices of Violation and complaints have decreased since 1999, the number of episodes at

the refinery has increased to more than double that of 1999.<sup>10</sup> The District describes the purpose of the Annual Compliance Report in the Statement of Basis.

“The main purpose of this evaluation is to identify ongoing or recurring problems that should be subject to a schedule of compliance. No such problems have been identified. A second purpose of this evaluation is to identify activities that require additional monitoring to assure compliance. No such activities have been identified.”

*See* Statement of Basis, p. 21.

However, the District’s Updated Compliance Report for January 1, 2002 to June 30, 2002 for the refinery indicates that this ‘good’ status has not improved; rather, it has gotten worse. As of June 30, 2002, the Avon Refinery had received 25 NOVs, 13 complaints, and has had 30 excess emission episodes. *See* Exhibit C, p. 4. The District neglects to explain the increase in NOVs at the refinery, and it also neglects to explain why this increase does not require the District to institute additional monitoring requirements at the refinery. Until the District provides an adequate basis for the compliance status at the refinery, the draft permit does not assure compliance with all applicable requirements and should not be finalized in its current form.

Further, District records indicate that there are presently 14 notices of violation that have been issued to the Avon Refinery during 2002 that have not been resolved. As a result, the Avon Refinery remains out of compliance with all applicable requirements, and until it submits a revised compliance certification and compliance plan, the current permit does not assure compliance with all applicable requirements and should not be finalized in its current form.

#### **n. The Lack of Monitoring in the Permit is Improper**

Title V regulations require “monitoring sufficient to yield reliable data from the relevant time period that are representative of the source’s compliance” and requires all Title V permits to contain “testing, monitoring, reporting, and recordkeeping requirements sufficient to assure compliance with the terms and conditions of the permit.” *See* 40 C.F.R. § 70.6(a)(3), 40 C.F.R. § 70.6(c)(1). BAAQMD Regulation 2-6-409.2 requires that a Title V permit contain “[a]ll applicable requirements for monitoring, recordkeeping and reporting” and allows the District to include “[a]dditional requirements for testing, monitoring, reporting and recordkeeping sufficient to assure compliance with the applicable requirements.” BAAQMD Regulation 2-6-409.2 further requires that “[w]here the applicable requirement does not require periodic monitoring or testing the permit shall contain periodic monitoring sufficient to yield reliable data from the relevant time periods that is representative of the source’s compliance with the permit.”

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<sup>10</sup> Notices of Violation – When a violation of a BAAQMD Regulation is documented at a facility, a Notice of Violation (“NOV”) may be issued and the District may assess a penalty.

Complaints – The District maintains a toll-free number for lodging public complaints of odors, smoke, fires, dust, fall-out, and other related air pollutants. Complaints can also be referred from the U.S. EPA and the CARB. The District also categorizes complaints as either confirmed or unconfirmed.

Episodes – The District defines episodes as reported equipment breakdowns, monitored emission excesses, inoperative monitors, and pressure relief valve venting. Episodes are investigated by District inspectors for compliance with applicable regulations.

Notwithstanding these requirements, the District has determined that additional monitoring to assure compliance with all applicable requirements does not need to be imposed on the Avon Refinery. The District states in the Statement of Basis that

“although Title V calls for a re-examination of all monitoring, there is a presumption that these factors [used by the District to develop monitoring] have been appropriately balanced and incorporated in the District’s prior rule development and/or permit issuance. It is possible that, where a rule or permit requirement has historically had no monitoring associated with it, *no monitoring may still be appropriate in the Title V permit if, for instance, there is little likelihood of a violation.* Compliance behavior and associated costs of compliance are determined in part by the frequency and nature of associated monitoring requirements. As a result, the District will generally revise the nature or frequency of monitoring only when it can support a conclusion that existing monitoring is inadequate.”

See Statement of Basis, p. 12 (emphasis added).

The District’s determination that, in some cases, requiring monitoring is inappropriate is in direct contradiction of the mandate of Title V of the Clean Air Act which requires a Title V permit to contain monitoring sufficient to assure compliance. See 42 U.S.C. § 7661c(c). It is unclear to Commenters, for example, how violations will be detected if there is no monitoring. Throughout this comment letter, Commenters identify requirements for which adequate monitoring is either absent or insufficient to assure Avon’s compliance with permit requirements.

Further, the District creates a presumption that the existing monitoring is adequate, but this presumption is not authorized by either Title V or by BAAQMD Regulation 2-6-503. See Statement of Basis, p. 12. Title V specifically authorizes the imposition of new monitoring requirements on a facility to assure compliance with permit conditions. The District states that it failed to examine new monitoring based on this new requirement. Therefore, until adequate monitoring is incorporated into Avon’s Title V permit the permit should not be finalized in its current form.

#### **o. The Lack of Reporting in the Permit is Improper**

The permit fails to include proper reporting requirements into a number of permit conditions. In many places in the permit, the District requires the refinery to maintain logs at the facility for five years.<sup>11</sup> However, the District fails to require the data collected in these logs to be reported every six months as required by Title V. See 40 C.F.R. §§ 70.6(a)(3)(i)(B), 40 C.F.R.

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<sup>11</sup> See, e.g. Permit Condition #573, Title V Permit, p. 508; Condition #5711, Title V Permit at p. 529; Condition #6740, Title V Permit at p. 532; Condition #9604, Title V Permit at p. 562; Condition #9605, Title V Permit at p. 562; Condition #10525, Title V Permit at p. 565; Condition #6740 (only requires records to be kept for 48 months), Title V Permit at p. 532; Condition #10526, Title V Permit at p. 567; Condition #10984, Title V Permit at p. 589; Condition #11609, Title V Permit at p. 571, 572, and 573; Condition #17292, Title V Permit at p. 591; Condition #17477, Title V Permit at p. 592, 593, 594, 595, and 596; Condition #17837, Title V Permit at p. 597; Condition #18372, Title V Permit at p. 603; and Condition #18539, Title V Permit at p. 606.



§ 70.6(a)(3)(iii)(A). The District states in numerous permit conditions that these logs “shall be kept on site and made available to District staff upon request.” *See* examples in footnote 11. Without requiring that the data kept in the logs be reported to the District every six months, the permit condition language does not comply with Title V requirements. The District should include the semi-annual reporting requirement in each place in the permit where the permit requires the facility to make the log “available to District staff upon request.”

The District’s failure to include semi-annual reporting requirements exists throughout the permit. The permit consistently requires the refinery to maintain records at the facility, but does not require those records to be regularly submitted to the District. This defeats one of the central purposes of Title V. Title V was created to allow the public the ability to review whether a facility was in compliance with all permit terms and conditions. If records are maintained solely at the facility, the public will have no access to them either from the District or through a Public Records Act request. Without access to compliance information, the public is left without access to information specifically required by Title V. *See* 40 C.F.R. § 70.6(a)(3)(iii)(A).

Standard Condition F in the Title V permit fails to compensate for this problem. Condition F states that “[r]eports of all required monitoring must be submitted to the District at least once every six months, except where an applicable requirement specifies more frequent reporting.” *See* Title V Permit, p. 5. Even though this condition requires semi-annual reporting, the lack of a specific directive in permit conditions that contain recordkeeping requirements creates inconsistencies in the permit. The facility could use these inconsistencies to argue that only a select amount of information must be reported to the District, and this could result in the withholding of important information that should be available to the public as required by Title V. The District should change Standard Condition F to incorporate the following language: “Reports of all required monitoring and reports of data from all logs maintained at the facility must be submitted to the District at least once every six months, except where an applicable requirement specifies more frequent reporting.” Until such a change is incorporated into the permit, the permit cannot be finalized in its current form.

#### **p. Issues With Section VII of the Permit on Compliance Monitoring**

Section VII of the Title V Permit has multiple problems including a number of incomplete tables and table-entry errors. In addition, the District inappropriately proposes “no monitoring” for many sources, and thus fails to assure compliance with the emission limitations placed upon these sources. Accordingly, the Title V permit may not be finalized until Section VII is satisfactorily completed and monitoring is added such that compliance with all federal requirements will be assured. The comments below discuss specific monitoring issues and problems with the tables listed in Section VII of the Title V Permit.

#### **q. Insufficient Monitoring of Storage Tanks**

Table VII, at pages 682 through 722, lists monitoring requirements for a large number of refinery storage tanks. Proposed monitoring to assure compliance with the volatile organic compound limits of BAAQMD Regulation 8-5, and 40 C.F.R. § 60 Subpart Ka and Subpart Kb, consists of measurement and visual inspection of primary rim seals with a 10-year monitoring frequency or

in some cases “upon change of service,” or when “emptied and degassed” or similar such language. However, Title V regulations require “periodic monitoring sufficient to yield reliable data from the relevant time period that are representative of the source’s compliance” and also require all permits to contain “testing, monitoring, reporting, and recordkeeping requirements sufficient to assure compliance with the terms and conditions of the permit.” *See* 40 C.F.R. § 70.6(a)(3), 40 C.F.R. § 70.6(c)(1).

We object to the proposed 10-year monitoring frequency because this means that a tank may not be monitored for the entire 5-year period covered by the Title V Permit. Therefore, the proposed monitoring period is insufficient to “yield reliable data from the relevant time period” of the permit, which is 5 years or less. The proposed 10-year monitoring requirement is effectively a no-monitoring requirement. The monitoring frequency must be decreased to less than 5 years in order to assure compliance with the terms and conditions of the permit. *See* 40 C.F.R. § 70.6(c)(1).

Likewise, the District must also revise monitoring frequencies for all cases in which it is proposing that monitoring be carried out “upon change of service,” or when tanks are “emptied and degassed.” A specific time interval less than 5 years must be defined and incorporated into the permit.

#### **r. Insufficient Monitoring for Opacity, Filterable Particulate, and Nuisance Fallout**

A large number of refinery sources have federally enforceable limits on opacity, filterable particulate (“FP”), and nuisance fallout, per BAAQMD Regulations 6-301, 6-310, and 6-305, respectively. These sources and the applicable limitations are listed in Table VII of the Title V Permit on the following pages in the permit: 625, 632, 633, 634, 637, 639, 644, 661, 665, 666, and 669.<sup>12</sup> In all these cases, the District proposes no monitoring to ensure compliance with the applicable limits. This is inconsistent with federal regulations on monitoring. *See* 40 C.F.R. § 70.6(a)(3), 40 C.F.R. § 70.6(c)(1). Therefore the District must impose additional monitoring requirements on the permittee to ensure compliance in these cases, and for any other similar occurrences of this problem.

#### **s. Inappropriate Monitoring for Organic Emissions**

Various refinery sources are subject to federal monitoring requirements for organic emissions under the NESHAP for Petroleum Refineries, 40 C.F.R. § 63.1046. Among these, are sources listed in Table VII on pages 628, 631, 640, 641, and 670. In these cases, the District proposes “visual inspection” to comply with a limitation of “no detectable organic emissions.” Visual inspection may not be used as a reliable method for detecting organic emissions and assuring compliance with applicable limits. Indeed, the petroleum refinery NESHAP defines the appropriate method of monitoring:

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<sup>12</sup> Examples of sources that have opacity and FP limits are: the catalyst fines hopper at the FCCU, (S-99), the sandblasting operation (S-781), the coke storage pile, (S-821), fluid coker (S-806), and the sulfur collection pit (S-1405).

“The test shall be conducted in accordance with the procedures specified in Method 21 of 40 CFR part 60, appendix A. Each potential leak interface (i.e., a location where organic vapor leakage could occur) on the cover and associated closure devices shall be checked. Potential leak interfaces that are associated with covers and closure devices include, but are not limited to: the interface of the cover and its foundation mounting; the periphery of any opening on the cover and its associated closure device; and the sealing seat interface on a spring-loaded pressure-relief valve.”

See 40 C.F.R. § 63.1046(a).

Appendix A of 40 C.F.R. § 60. Appendix A states that, “[a] portable instrument is used to detect VOC leaks from individual sources.” The District must revise these portions of Table VII to make them consistent with federal requirements, as quoted above.

**t. Pressure Relief Valves Need Better Monitoring**<sup>13</sup>

District staff has recently recognized that refinery pressure relief valve (“PRV”) emissions are underreported as a result of inadequate monitoring methods. In a study on the effectiveness of SIP Regulation 8-28 they indicated the following concerns:

“None of the refineries had a reliable system to identify or track lifts. The emissions from PRV lifts are probably underreported because these valves are not instrumented and emission quantification for lifts is not required. The office visits included a question about the means used to detect when a PRV lift occurred. In all six cases sound was used, pressure was used by four refineries, and sight was noted by one refinery. These detection methods are not definitive and clearly indicate many PRV lifts likely go undetected. In particular, lifts often occur during a process upset when the operators are mostly engaged with controlling the process and noting a PRV lift is not a high priority.”<sup>14</sup>

According to the Contra Costa County database,<sup>15</sup> a substantial number of refinery accidents involved pressure relief valves. The County database provides data on the involvement of either pressure relief valves or flares for refinery accidents. In 1999, 37 out of 83 serious chemical accidents from the County database, which had the potential to cause offsite impacts, involved pressure relief valve or flare usage, and for the year 2000, 50 out of 107 accidents did.

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<sup>13</sup> These comments have been adapted from comments on the Valero Refining Company Title V Permit, made by Communities for a Better Environment (“CBE”), in a letter from Will Rostov, CBE Staff Attorney, to Douglas W. Hall, BAAQMD Permit Engineer, dated September 9, 2002.

<sup>14</sup> BAAQMD, Rule Effectiveness Study on PRVs, November 15, 1995.

<sup>15</sup> The Contra Costa County database can be downloaded from the CBE Website ([www.cbecal.org](http://www.cbecal.org)) in the Appendix to the CBE Report “No Accident!, Major Accidents and Serious Incidents: 1999-2000 Contra Costa County-California,” Appendix Tables: Serious Incidents in Contra Costa County in 2000, and Serious Incidents in Contra Costa County in 1999.

Petroleum refinery workers also reported that PRV liftings occur frequently without being reported to the District.

In order to address this monitoring problem, the District should require the refinery to install tell-tale indicators (simple flag devices that pop up and stay up when a valve opens) for all PRVs, and this should be included in the permit along with the appropriate recordkeeping and reporting requirements. The District should also require newer devices, now available, that can monitor additional parameters such as pressure and flow, and should require more frequent inspections.

Additional monitoring of pressure release valves is essential to ensure compliance with BAAQMD Regulation 8-28-401 (reporting of PRV venting), as well as, to remedy the Refinery's ongoing problems with compliance. *See* Comment C.1.M. above.

#### **u. Miscellaneous Monitoring Problems**

- a. Table VII, page 626: Please correct the table to show that BAAQMD Regulation 8-7-313.1 is federally enforceable. In addition, compliance with Title V requires monitoring to verify that VOC fugitive emissions, spillage, and retention and spitting are within the defined limits.
- b. Table VII, at pages 634 and 635, includes no monitoring to assure compliance with the sulfur dioxide and ammonia limits of BAAQMD Regulation 9-1-313.2 (sulfur removal operations at petroleum refineries). Monitoring should be included to ensure compliance with these limitations.
- d. Table VII, at page 638, contains organic vapor emission limits for S-815, 816, and 817 (feed preparation and crude units). The monitoring frequency is incorrectly listed as no monitoring. Please correct this error.
- e. Table VII, page 645: Please correct the table to show that BAAQMD Regulation 8-16-501 is federally enforceable.
- f. Table VII, at page 647, includes a monitoring frequency stated as "N or C." The ambiguous meaning of this table entry should be clarified in the table and in the Statement of Basis. Further, we object to the lack of monitoring since this would be inconsistent with Title V regulations that require monitoring sufficient to assure compliance with federal emissions limitations. BAAQMD Regulation 6-304 states that "an opacity sensing device in good working order" should be used to determine opacity in this situation.
- g. Table VII, page 666: Please correct the table to show that BAAQMD Regulation 9-1-309 is federally enforceable.
- h. Table VII, pages 682 to 723: This section of the table generally refers to storage tank limits and monitoring requirements. The table is missing federal enforceability determinations on every page. Please indicate that the BAAQMD Regulations for sources covered in this section of the table are all federally enforceable. In addition, tanks covered by BAAQMD Regulations 8-5-

311.3 and 8-5-328.2 have monitoring frequencies listed as “not specified.” Please correct these errors. The monitoring frequency for these requirements should be on a per episode basis.

#### **v. Emissions From Leaking Valves**

U.S. EPA inspections have found much higher leak rates for refinery valves (including for Bay Area refineries) than were reported by the refineries.<sup>16</sup> EPA found an average leak rate of 5%, compared to 1.3% reported by these refineries. EPA estimated VOC emissions from unreported leaks at over 80 million pounds per year, including 15 million pounds of HAPs. The range of leak rates reported by the refineries was 0.2 to 3.6%, but EPA found a range of 1.7 to 10.5% for ten companies for which the investigation was completed. For another 7 refineries still under investigation at the time, the refineries reported a leak range of 0.2 to 2.3%, but EPA found a range of 2.8 to 11.5%. *See* footnote 13.

We recommend that the District place additional monitoring and reporting requirements on the permittee to insure that episodes and violations involving leaking valves will not increase during the period covered by the Title V permit. Part of these additional requirements should include incorporation of the facility Leak Detection and Reporting Plan into the permit.

#### **w. Process Vessel Depressurization**

Current District regulations allow the opening of refinery process vessels after the pressure within a vessel is brought “as close to atmospheric pressure as practically possible, in no case shall a process vessel be vented to the atmosphere until the partial pressure of organic compounds in that vessel is less than 1000 mmHg (4.6 psig).” *See* BAAQMD Regulation 8-10-301.4. The refinery has a number of process units that are subject to this rule. These units are listed in Table VII of the Title V Permit, on pages 629, 636, and 638. In all cases, monitoring to assure compliance with Regulation 8-1-301.4 consists only of recordkeeping. However, in order for recordkeeping to be an acceptable method of monitoring compliance, all the units listed in the above tables must be equipped with pressure gauges sensitive enough to accurately measure vessel pressure levels at or below 1000 (mmHg). If this is not the case, the District must impose additional monitoring requirements, such as the installation of pressure gauges, to assure compliance with Regulation 8-10 in the permit.

## **2. Detailed Comments On the Most Significant Process and Emission Units at the Refinery**

### **a. Tank Regulation, Exemption and Permit Designation**

#### *i. The Draft Permit Does Not Contain Information on Several Tanks Listed in the Permit Application*

A review was conducted of approximately 210 onsite tanks claimed as exempt from District permitting requirements under Regulation 2-1-123 in the 1996 Title V Permit Application. After

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<sup>16</sup> *See*, “Oil Refineries Fail to Report Millions of Pounds of Harmful Emissions,” U.S. Representative Henry A. Waxman, November 1999, available at [http://reform.house.gov/min/pdfs/pdf\\_inves/pdf\\_enviro\\_oil\\_refine\\_rep.pdf](http://reform.house.gov/min/pdfs/pdf_inves/pdf_enviro_oil_refine_rep.pdf).

disregarding tanks that the Statement of Basis listed as “removed from service,” Commenters compared tanks designated as exempt in Table II C – Tank Sources Exempt From Permitting in the Permit Application to tank emission sources in the draft permit. This review found that several tanks clearly noted in the permit application are not listed anywhere in the text of the draft permit, either as exempt from permitting requirements or in the cluster of tanks that have “recordkeeping only” requirements.

Specifically, the following tank numbers that are contained in the 1996 permit application and claimed as exempt from permitting requirements are not found in the draft permit:

A-180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 223, 231, 240, 276, 294, 370, 371, 372, 373, 375, 376, 384, 387, 388, 389, 390, 506, 507, 510, 514, 515, 516, 539, 554, 572, 597, 598, 599, 615, 618, 646, 647, 648, 649, 666, 667, 668, 669, 670, and 718.

There is no explanation of why the District agreed with the claim of exemption. The District must state the basis for any exemptions.

In addition, the following tanks at the Amorco Terminal are claimed as exempt from permitting, but again are not listed in the draft permit:

B-5, B-6, B-45, B.46, B-47, B-48, and B-49.

Finally, the following tank is listed as a permitted source in the permit application but is not mentioned at all in the draft permit:

B-23.

None of the publicly available documents reviewed by Commenters since the submission of the permit application indicates that these tanks have been removed from service or should otherwise be excluded from the draft permit. Accordingly, the District must determine the status of these tanks and the exemptions claimed in the permit application and include such tanks in the draft permit, even if it is only to add to the list of out of service and/or exempted tanks.

*ii. The Draft Permit and Statement of Basis Do Not Contain Sufficient Information Regarding Claimed Exemptions from Tank Permitting Requirements*

The permit application lists over 200 onsite tanks as exempt from requirements at the Avon Refinery. Nearly all of these claimed exemptions are unsupported by any additional information such as the purpose and name of the tank (other than its numeric descriptor), the identify of the substances stored in each tank, an identification of the maximum throughput in the tank, whether the fixed roof tank contains a submerged fill or not, the maximum vapor pressure of any substance to be stored, the maximum temperature at which the tank could be operated under the most adverse ambient temperatures, and the surface coating treatment of such tanks. All of these factors are germane to the matter of calculating potential tank emissions and mandatory

regulatory tank treatment. Also, there is no information on when the tank was constructed for a consideration of potential new source performance standard (“NSPS”) applicability.

Merely indicating that Regulation 2-1-123 is the basis for exempting tanks from permitting does not provide sufficient information to the public for an evaluation of the exemption since the regulation allows exemptions on multiple physical and circumstantial grounds. For example, there is no basis for the claim that the maximum daily emissions are below the 150-pound emission threshold contained in the District tank rules. In addition, exempting tanks under Regulation 2-1-123 is inappropriate because the regulation fails to adequately regulate substances containing dissolved hydrogen sulfide. Finally, it is impossible to determine whether a tank is exempt from permitting because of the aforementioned physical and circumstantial matters or because it is otherwise exempted from NSPS storage tank rules.

The section of the permit application requesting that over 200 tanks be exempt from permitting requirements should be amended to provide a clear factual basis for the requested exempt treatment before the permit is issued in order for the public to conduct a reasonable inquiry into the basis for such exemption requests.

*iii. Tanks Claimed Exempt in the Permit Application had 1993 Actual Emissions Far Greater than the Significance Requirements in the Application, Yet Were Not Listed in the Permit Application Potential to Emit Emission Inventory*

BAAQMD Regulation 2-6-239 defines a significant source as an emission unit that has the potential to emit of more than 2 tons per year of any regulated air pollutant or more than 400 pounds per year of any hazardous air pollutant. BAAQMD Regulation 2-6-405.6 requires applications for Title V permits to include a listing of emissions for all significant sources.

Commenters reviewed selected tank emission sources identified in the emission characterization section of the permit application, which was based on 1993 potential to emit and throughput numbers. This review is summarized in the table below (NR is No Report):

<b>Tank for Which Permit Exemption is Claimed</b>	<b>Permit Exemption Claimed in 1996 Application?</b>	<b>Potential to Emit from 1996 Application (1993 data) (t/y)</b>	<b>Actual 1993 Emissions, BAAQMD EI (t/y)</b>
A-26	N	3.319	15.923
A-229	Y	3.938	5.043
A-230	Y	NR	19.615
A-231	Y	4.563	NR
A-232	Y	NR	5.092
A-233	Y	7.848	8.332
A-235	Y	NR	21.723
A-236	Y	14.418	20.428

A-237	Y	NR	23.791
A-238	Y	NR	5.398
A-244	Y	NR	17.210
A-246	Y	NR	2.496
A-247	Y	NR	2.713
A-248	Y	NR	2.709
A-271	Y	NR	2.402
A-273	Y	NR	2.443
A-431	N	NR	2.599
A-503	Y	NR	2.364
A-621	Y	2.716	3.225
A-650	N	NR	6.272
A-651	N	NR	12.548
A-655	N	NR	2.259
A-657	N	NR	2.510
A-690	N	3.145	4.148
A-701	N	2.236	2.568
A-708	N	3.775	4.019
A-709	N	NR	6.372
A-711	N	3.299	11.208

Two potential conclusions can be drawn from the table above. The first conclusion is that the permit application is in error where actual 1993 reported emissions either exceed the permit application information on potential to emit or the application does not report any potential to emit for the tank emission unit. However, the application must list all sources with a potential to emit more than 2 tons per year of regulated air pollutants under BAAQMD Regulation 2-6-239 and as indicated by the table the exemption cannot be approved for the tank sources in question.

The second conclusion is that in circumstances where the 1993 emissions exceed the calculated potential to emit in the application, claims of exemptions may be improper since increased emissions may have triggered more stringent NSPS requirements. *See* 40 C.F.R. § 60.2.

At a minimum, Commenters request that the District, in responding to these comments, make a specific determination on the NSPS modification issue and claimed exemption for tanks cited in the table above. Further, Avon should provide the potential to emit calculations for all tanks identified in the table for which no potential to emit characterization was provided in the permit application.



iv. *The Draft Permit Does Not Uniformly Require Tanks to Comply With Tank Degassing Requirements*

A review of some of the permit provisions affecting newer tanks on site contain clearly stated tank cleaning requirements. However, nothing in the permit requires that the mandatory tank degassing requirements of BAAQMD Regulations 8-5-111, 8-5-328 and 8-5-329 apply to all tanks at the refinery. These regulations are not indicated in the Table III – Generally Applicable Requirements in the permit as applying to all tanks for which degassing is required or may occur. Degassing requirements are important to include as a requirement because they are designed to ensure that vapor control systems run until inlet vapors to the degassing control device are reduced to less than 10,000 ppmv under the rule.

The permit should be rewritten to require enforceable tank monitoring and inspection requirements for tanks alleged to have been taken out of service until a degassing operation has been achieved and until all VOC contaminated tank-bottoms have been removed from such tanks. In addition, because BAAQMD Regulations 8-5-111.3 and 8-5-111.5 contain language that may be unenforceable, such as “shall be accomplished as rapidly as possible,” “as much product as possible shall be drained” and “tank degassing” shall be “operated as soon as possible,” more enforceable requirements must be listed in the permit to substitute for these unenforceable conditions.

Finally, the permit should contain provisions that require that if decommissioned tanks are returned to service, they should immediately comply with requirements for controlling slotted guidepole emissions, operation with properly installed and well maintained primary and secondary seals in place and other tank-related VOC measures.

v. *The Permit Should Indicate that Portions of BAAQMD Regulations 8-5-111 and 8-5-112 Have Been Given Limited Disapproval by U.S. EPA*

Most of the permitted tanks at the refinery are subject to BAAQMD Regulation 8-5. However, BAAQMD Regulation 8-5 was given only “limited approval” by the U.S. EPA (66 Fed. Reg. 51568, October 10, 2001) and the consequences of this action needs to be documented in the permit. When EPA allowed BAAQMD Regulation 8-5 to be incorporated into the SIP, it at the same time disapproved of some of the regulation’s provisions. EPA disapproved part of the regulation because some provisions conflicted with Section 110 and Part D of the Clean Air Act. Regulation 8-5 was objectionable because it “exempted sources from control requirements during certain startup, shutdown, and maintenance conditions in violation of EPA’s 1999 guidance on excess emission during malfunctions, startup, and shutdown.” *Id.*

The non-approved aspects of Regulation 8-5 are found at 8-5-111 and 8-5-112. Although limited approval means that the disapproved aspects of the rule are temporarily part of the SIP, the District must fix this problem within 18 months of the effective date of the limited approval date. The due date for revision is approximately May 2003. The District should document the temporary status of the tank exemptions in the permit, wherever these exemptions are claimed.

**b. Fugitive Emissions from Valves, Flanges, Pumps, Compressors, Pressure Operated Relief Valves, Process Drains and Wastewater Equipment**

Actual emissions from fugitive sources are a significant portion of the total plant emissions of volatile organic compounds (VOCs) as shown in the table below:

Source	Claimed as VOC Potential to Emit in Application (t/y)	Actual 1993 Reported VOC Emissions (t/y)	Actual 2001 Reported VOC Emissions (t/y)
Valves & Flanges - S-32102	166.6	801.4	308.1
Pumps & Compressor Seals - S-32103	18.7	132.6	1.1
Pressure Relief Valves - S-32104	109.1	187.8	187.1
Process Drains and Sewers - S-32105	116.3	92.0	91.6
Wastewater Treatment Equipment; S-819, S-842 & S-1026	12.6 (S-819 only)	364	734.4
Actual Total Plant VOC Emissions	868.4 <sup>17</sup>	2,215.5	2270.0
<b>Percent Total Fugitives Over Plant Totals</b>	<b>49%</b>	<b>71%</b>	<b>58%</b>

Because of the high proportion of the total plant VOC emissions posed by these fugitive sources, special care and review are required on fugitive emission control provisions of the proposed permit to ensure that the final permit will effectively control such emissions.

*i. Wastewater Equipment*

The table below shows all components of the wastewater treatment system at the refinery that show any significant VOC emissions during 1993-2001:

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<sup>17</sup> This number is supposed to be a total of the potential to emit rather than actual emissions. This total probably only incorporates a total of sources that have significant emissions over 2 tons/year, rather than all sources.

<b>Emission Unit</b>	<b>Description</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>
842	Wastewater Treatment Plant	20	200	200	200	0	145.6	136	136	532.9
1026	DAF Air Stripper	0	0	0	0	0	0	0	21.4	83.9
819	API Oil Water Separator	252	252	252	37.8	0.85	25.8	25.8	25.8	26.0
32105	Fugitive Sources - Process Drains	92.0	91.7	91.7	91.7	91.3	91.7	91.7	91.7	91.6
<b>Totals</b>		<b>364</b>	<b>543.7</b>	<b>543.7</b>	<b>329.5</b>	<b>92.2</b>	<b>263.1</b>	<b>253.5</b>	<b>274.9</b>	<b>734.4</b>

From the table it can be seen that the total wastewater system VOC emissions have increased to their highest level ever in 2001 and the Wastewater Treatment Plant (S-842) and the DAF Air Stripper (S-1026) have individually shown growth over baseline.

The table below indicates the information in the permit application on potential to emit for these five different refinery process sources:

<b>Emission Unit</b>	<b>Description</b>	<b>Application PTE (t/y)</b>
842	Wastewater Treatment Plant	NR
1026	DAF Air Stripper	NR
819	API Oil Water Separator	12.6
32105	Fugitive Sources - Process Drains	117.9

From this information, it seems that the reported potential to emit in the permit application for S-819 was far exceeded by actual emissions in 1993 through 1996 and, except for 1997, has always been more than the potential to emit indicated in the application. No potential to emit calculations were provided for the Wastewater Treatment Plant (S-842) and the DAF Air Stripper (S-1026), so they either were not in place as of 1993 or their PTE emissions were calculated at less than 2 tons per year. All wastewater units should thus comply with 40 C.F.R. § 60 Subpart QQQ.

The NSPS regulations for the control of air pollution from drain systems, oil-water separators and other equipment associated with collection and treatment at petroleum refinery wastewater treatment plants (“WWTP”) generally require the collection, treatment, and control of volatile organic compounds from such facilities.

In publishing the regulations, the EPA Administrator included a provision defining that an aggregate facility “means an individual drain system together with ancillary downstream sewer lines and oil-water separators, down to and including the secondary oil-water separator, as applicable.” 40 C.F.R. § 60.690 provides:

- “(a)(1) The provisions of the subpart apply to affected facilities located in petroleum refineries for which construction, modification, or reconstruction is commenced after May 4, 1987.
- (2) An individual drain system is a separate affected facility.
- (3) An oil-water separator is a separate affected facility.
- (4) An aggregate facility is a separate affected facility.
- (b) Notwithstanding the provisions of 40 CFR 60.14(e)(2), the construction or installation of a new individual drain system shall constitute a modification to an affected facility described in § 60.690(a)(4).”

Thus, when new refinery drains are constructed the rest of the downstream drain system and many components of the refinery WWTP come under the applicability of NSPS Subpart QQQ WWTP air emission standards.

This interpretation is supported the explanatory language in the Federal Register notice announcing the Subpart QQQ standards which states that:

“installation of a new individual drain system (consisting of process drains connected to the first common downstream junction box), rather than any physical or operational change, is necessary to constitute a ‘modification’ to the aggregate facility. If a new individual drain system is constructed that results in increased emissions, the individual drain system together with its ancillary downstream components down to and including the oil-water separators is an affected facility subject to the requirements for aggregate facilities, even if no capital expenditure is involved. Other physical or operational changes to the wastewater system components would constitute a modification if emissions increase and a capital expenditure is made on the facility.

As explained above, under the aggregate affected facility definition, a new individual drain system *or* an emissions increase from an existing drain system could cause existing downstream components to be subject to the standards. Only if the total emissions increase is offset would the wastewater components be exempt from the aggregate facility definition. Offsetting of emission increases would have to occur within the associated existing wastewater treatment facilities. Owners or operators of the facility would be required to demonstrate that emission offsets claimed at one facility would not be suppressed and thereby released to the air at some downstream location. Even though an individual drain system and existing downstream components may be exempt under the aggregate definition as a result of offsets, the new, modified or reconstructed individual drain system may constitute a separate affected facility under the individual drain system definition.”

See 53 Fed. Reg. 47616, 47617-47618 (November 23, 1988) (emphasis added).

Here, the Avon Refinery appears to have had both a new individual drain system causing downstream applicability (HDS plant #1 & #2; MTBE plant) and an actual emission increase as reported in the District annual emission inventory. Reported actual emissions beyond the calculated Potential to Emit and increases in reported annual emission rates have both occurred, according to the data in the tables above.

As a result, it appears that all wastewater units, including S-819, S-842, S-1026 and S-32105 must comply with Subpart QQQ. The draft permit, on page 496, shows that only four sources are subject to Subpart QQQ – HDS units #1 and #2, the MTBE plant, and the API separator. The draft permit must be amended to specify that Subpart QQQ requirements apply to S-819, S-842, S-1026 and S-32105.

*ii. The Draft Permit Omits Emission Limitations and Applicable Requirements for Process Drains and Sewers*

A search of the permit indicates that there is no mention of emission limitations, work practices, emission control equipment and applicable requirements for process drains and sewers at S-32105. Even Table IV-DG on page 496 of the permit, Fugitive Sources: Applicable Requirements, fails to mention this important fugitive emission source.

At the very least, the permit must show the process drains and sewers downstream from the four units identified as subject to Subpart QQQ applicable to that portion of S-32105 subject to Subpart QQQ. In addition the permit must show all control equipment, emission limitations and monitoring requirements associated with such a minimal consideration of Subpart QQQ applicability. Those portions of S-32105 must be shown in Fugitive Emission Applicable Requirement Table IV-DG. In addition, the permit must be amended to show the applicable requirements (and Subpart QQQ applicability) for all abatement devices used in association with Subpart QQQ components in specific tables of Sections IV and VII.

*iii. The Permit Should Indicate That Portions of BAAQMD Regulation 8-18 Have Been Given Limited Disapproval by U.S. EPA*

BAAQMD Regulation 8-18 was given only “limited approval” by the U.S. EPA (66 Fed. Reg. 51568, October 10, 2001) and the consequences of this action need to be documented in the permit. When EPA allowed rule 8-18 to be incorporated into the SIP, it at the same time disapproved of the rule’s proposed language allowing compliance options and the use of new leak detection and repair technology without EPA approval. Although limited approval means that the disapproved aspects of the rule are temporarily part of the SIP, the District must fix this problem within 18 months of the effective date of the limited approval date. The due date for revision is approximately May 2003. The District should indicate where the objectionable portions of rule 8-18 are cited in the permit and also indicate that amendments to the permit will occur in May of 2003.

*iv. Table IV-DG on Applicable Requirements for Fugitive Emission Sources Fails to Require Compliance With Either 40 C.F.R. § 60 Subpart VV or 40 C.F.R. § 63 Subpart H on Equipment Leaks*

Table IV-DG on Fugitive Emission Applicable Requirement fails to indicate that sources at the refinery are subject to 40 C.F.R. § 60 Subpart VV and BAAQMD Regulation 10-52 and there is no mention of 40 C.F.R. § 63 Subpart H.

Further, the permit is deficient because 40 C.F.R. § 63 Subpart CC requires that a refinery choose between complying with 40 C.F.R. § 60 Subpart VV or 40 C.F.R. § 63 Subpart H for all affected units. Moreover, the permit should indicate that the requirement is federally enforceable.

Instead of relying on either 40 C.F.R. § 60 Subpart VV or 40 C.F.R. § 63 Subpart H, the District indicates that BAAQMD Regulations 8-18 and 8-28 govern equipment leaks. BAAQMD Regulation 8-18 does not contain provisions similar to 40 C.F.R. § 60.482-5, 40 C.F.R. § 60.482-6, 40 C.F.R. § 63.166 and 40 C.F.R. § 63.167 on controlling emissions from sampling lines and open ended pipes and valves (and perhaps other fugitive sources types as well that are contained in the federal regulations but not in Rule 8-18). The District should include the requirements of either 40 C.F.R. § 60 Subpart VV or 40 C.F.R. § 63 Subpart H in the permit.

*v. The Draft Permit Fails to Incorporate VOC RACT Requirements for Fugitive VOC Emissions from the Refinery Cooling Towers and Fails to Provide Limitations on the Potential to Emit for Particulate Matter*

The permit application and draft permit show a total of thirteen cooling tower emission units at the Avon Refinery. The permit indicates that the District relies solely on volumetric throughput recording to limit particulate emissions. This is not adequate to fully ensure that particulate emissions do not exceed predicted emission levels. In addition to volumetric rate measurements, the requirement for weekly testing of total dissolved solids and total suspended solids contents of cooling water supplies should also be added to the permit.

The draft permit does not provide for sufficient emission controls for the large aggregate VOC emissions from the cooling towers source category at the refinery. The cooling tower category has a total of 409 tons of VOC emissions in its 2001 emission inventory. See table below. In addition, the potential to emit for the cooling tower category as stated in the permit application appears to be incorrect since, in most cases, actual reported VOC emissions far exceed the stated potentials to emit in the permit application. Finally, we note that the refinery has never indicated the emission of any hazardous air pollutants from cooling towers during 1993 to 2000 in the emission inventory. It is highly unlikely that there are no hazardous air pollutant emissions from this source category given the extensive involvement of these cooling tower systems in refinery distillation and transfer operations.

Commenters have reviewed a number of years of the Refinery's benzene waste NESHAPs Subpart FF reports submitted to U.S. EPA which analyze the benzene content in refinery wastewater. Commenters note that every report indicates that the refinery's benzene waste load

is less than 10 megagrams per year. However, there is no way to ascertain from the reports whether refinery benzene wastewater flows from subject processes are tested before or after any potential for air stripping. Given the high annual VOC emissions from cooling towers at this refinery, the District and U.S. EPA should conduct an inspection to determine whether any VOC or HAP contaminated process wastewater is being introduced into cooling water streams at the refinery's cooling towers. If an inspection finds that such addition is taking place, further agency review should concentrate on the acceptability of the benzene waste sampling protocols historically utilized at the facility in order to ensure that no evasion of benzene wastewater control requirements is taking place and on enforcement against such obvious bad air pollution control practices.

<b>VOC Emission Information on Cooling Towers at Tesoro Avon Refinery</b> (All emissions in tons per year unless otherwise stated; NR is no report)		
<b>Emission Unit and Process Description</b>	<b>Actual Reported 2001 Emissions (tons/year)</b>	<b>Tosco's 1993 PTE Emissions in Title V Application</b>
S-846, No.3 HDS Cooling Tower	69.1	NR
S-975, No. 4 Gas Plant Cooling Tower	85.0	8.7
S-976, No. 5 Gas Plant Cooling Tower	88.0	8.5
S-977, No. 3 Crude Unit Cooling Tower	55 lb/year	2.1
S-978, Foul Water Stripper Cooling Tower	7.8	NR
S-979, No. 2 Feed Prep Cooling Tower	10.3	NR
S-980, Hydrocracker Cooling Tower	23.7	2.3
S-981, No. 1 HDS Cooling Tower	16.4	2.0
S-982, No. 2 HDS Cooling Tower	19.2	2.2
S-983, Alky/No. 2 Reformer Cooling Tower	49.5	4.2
S-985, No. 1 Gas Plant Cooling Tower	5.4	NR
S-987, No. 50 Unit Cooling Tower	21.0	2.6
S-988, No. 3 Reformer Cooling Tower	7.5	NR
<b>TOTAL COOLING TOWER EMISSIONS (tons/year)</b>	<b>402.9</b>	<b>32.6</b>

The District has adopted two rules regulating cooling towers and they are listed below.

“Regulation 8-2-114 Exemption, Miscellaneous Plants: Emissions from cooling towers, railroad tank cars, marine vessels and crude oil production operations are exempt from this Rule, provided best modern practices are used.”

“Regulation 8-2-301 Miscellaneous Operations: A person shall not discharge into the atmosphere from any miscellaneous operation an emission containing more than 6.8 kg. (15 lbs.) per day and containing a concentration of more than 300 PPM total carbon on a dry basis. (Amended May 21, 1980)”

Use of VOC contaminated streams in heat-exchange/cooling tower systems from either breaches in heat exchangers or the introduction of VOC-contaminated waters in cooling towers is a poor air pollution control practice and is not considered to be the use of a modern system. The refinery cooling towers should be subject to Regulation 8-2-301 until the District adopts a formal RACT rule addressing the serious problem with cooling tower VOC emissions.

### **c. Issues Related to Refinery Boilers**

- i. The Draft Permit Impermissibly Omits Sulfur Dioxide Emission Limitations, Fuel Content Requirements and Continuous Monitoring Requirements from Table VII-A*

BAAQMD Regulation 9-1-304 on the burning of liquid and solid fuels provides that:

“A person shall not burn any liquid fuel having a sulfur content in excess of 0.5% by weight, or solid fuel of such sulfur content as would result in the emission of a gas stream containing more than 300 ppm (dry) of sulfur dioxide. This section shall not apply to:

304.1 The burning of sulfur, hydrogen sulfide, acid sludge or other compounds used in the manufacture of sulfur compounds;

304.2 The use of liquid or solid fuels to propel any motor vehicle, aircraft, missile, boat or ship;

304.3 The use of liquid or solid fuels which do not result in the emission of a gas stream containing more than 300 ppm (dry) of sulfur dioxide.”

S-903 can be fueled by refinery fuel gas, petroleum coke, or fuel oil. *See* Title V Permit, p. 615. As a result, the permit must incorporate sulfur dioxide continuous monitoring and a 3 ppm (dry) instantaneous average sulfur dioxide emission limitation. However, Table VII-A - Applicable Limits and Compliance Monitoring Requirements impermissibly omits this requirement, especially when the potential exists for the use of high sulfur content petroleum coke and high sulfur residual oil.

- ii. The Draft Permit Fails to Incorporate Emission Limitations, Compliance Verification, and Monitoring Measures for Annual Emission Limitations to the Combined Flue Exhaust of the FCCU and the FCCU CO Boiler*

Permit Condition #11433, on page 569-570 of the permit, provides annual emission limitations for five different criteria pollutants from the fluidized catalytic cracker regenerator and the



carbon monoxide boiler, Sources S-802 and S-901. However, the proposed permit impermissibly fails to incorporate these annual emission limitations into Table VII-A – Applicable Limits and Compliance Monitoring Requirements on pages 646 to 648 of the permit.

*iii. Screening Review of NOx Emission Inventories Relating to the Number 5 Coker CO Boiler (S-903), FCCU No.7 Boiler (S-901) and No. 6 Boilerhouse (S-904)*

The table below shows actual NOx emissions information in tons per year obtained from the District emission inventory.

<b>Boiler Unit</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>
#5-S903	43.0	37.3	32.3	32.3	32.3	36.2	107.0	107.0	145.6
#6-S904	169.2	174.4	144.0	144.0	144.0	233.7	311.0	311.0	279.8
#7-S901-FCCU Boiler	309.8	163.7	143.9	143.9	0	219.3	323.7	323.7	345.0

Each of the three boiler units are showing plateaus of lower annual emission rates, followed by higher rates. Under these circumstances, the District should make a determination of whether the sources engaged in a physical change or change in the method of operation that increased emissions, which would have triggered new source review.

Boiler #5, the Coker CO boiler, shows a lower emission plateau from 1993 through 1998 and then a higher emission plateau from 1999 through 2001, with a difference between the emission plateaus that exceed the NSR significant emission increase threshold of 40 tons per year.

Boiler #6 shows a lower emission plateau from 1993 through 1997 and then a higher emission plateau from 1998 through 2001, also with a difference of greater than 40 tons per year.

Boiler #7, the FCCU Boiler, shows a low emission plateau from 1994 through 1997 and then a higher emission plateau from 1998 through 2001, again with a difference between the plateau emission levels of more than 40 tons per year.

Each of these three units must be investigated further by the District to determine the reason for the apparent large increased annual emission plateaus occurring in the mid-1990s that appear to have exceeded the NSR significance level for modified sources of NOx. The permit should not be issued until this matter is clarified to ensure that the facilities have not, in fact, triggered the need for required NSR review by making a non-exempt physical change or change in the method of operation of this source.

*iv. The Refinery Engaged in a Near-Complete Rebuild of the Number 5 Coker CO Boiler and Electrostatic Precipitator Without Obtaining a New Source Review Permit*

Exhibit D contains information from Babcock & Wilcox concerning an extensive boiler modernization project undertaken at the Number 5 Coker CO Boiler (S-903) at the refinery with installation beginning in January 1997. According to the information sheet:

“B&W Construction Company managed Tosco’s No. 5 Boiler Complex upgrade work which included the complete rebuild of the boiler, excluding the lower furnace area. Scope included all major components including the generator bank, pendant superheater, horizontal economizer sections and screen wall sections.” See Exhibit D.

In addition to this work, Exhibit E indicates that the refinery engaged in a complete rebuild of the Coker Boiler’s electrostatic precipitator.

The emissions review in the previous subsection indicates that the Number 5 Coker CO Boiler had an increase in actual emissions that exceeded the NSR significance level. It appears that the Refinery increased annual NOx emissions from the Number 5 Coker CO Boiler by an amount greater than NOx NSR modification significance levels through an increase in utilization.

U.S. EPA has clearly indicated that an increase in utilization or capacity at a facility is a factor for determining whether significance levels are exceeded from an increase in emissions, even when short term actual emission rates stay the same or decline. U.S. EPA states that

“virtually any major capital improvement project at an existing source is designed in part to increase efficiency of production, and this will in turn almost always have the collateral effect of reducing emissions per unit of production, even though it may provide an economic incentive to increase total production, with the net result that actual emissions of air pollution to the atmosphere could increase significantly. There is nothing in the statutory terms or structure or in EPA’s regulations which suggests that such major changes should be accorded exempt status under the NSR program.”<sup>18</sup>

Commenters have diligently reviewed documents pertaining to the refinery at the District to determine whether the apparently physical changes to Number 5 Coker CO Boiler were reviewed by the District and whether it issued an Authority to Construct covering the work identified by Babcock and Wilcox. No such review or permit was found. Even if NOx emissions were offset by emission reductions elsewhere, these physical changes would still have required an Authority to Construct and minor new source review.

Proper District review of the physical changes made at the refinery would have resulted in BACT review for NOx emissions and other review that would have provided for lower emission limitations than are presently found in the draft Title V permit. For example, PM emission

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<sup>18</sup> U.S. EPA determination concerning NSR applicability for the Detroit Edison Monroe Power Plant, May 2000, footnotes 1 and 9, available at <http://www.epa.gov/ttn/nsr>.

limitations on a rebuilt electrostatic precipitator would likely have been considerably lower than 0.15 grains per dry standard cubic foot, and NO<sub>x</sub> emissions would have had to reflect BACT or LAER rather than application of the BAAQMD NO<sub>x</sub> RACT rule. As a result, issuance of the draft permit in its current form as to S-903 would cause real harm by authorizing emissions considerably higher than would otherwise be deemed proper under the Clean Air Act.

**d. Issues Related to Flares**

*i. Flare Process Emission Units at the Tesoro Avon Refinery*

The following table shows flaring systems at the Avon Refinery:

<b>Emission Unit Descriptor and Flare Description</b>	<b>Flare Capacity mmbtu/hr</b>	<b>Flare Capacity mmbtu/day</b>
S-854, East Air Flare	1,900	45,600
S-943, Tank A-691 Safety Flare, Natural Gas, Process Gas, Butane	2,500,000	60,000,000
S-944, North Steam Flare, Natural Gas, Process Gas	2,700	64,800
S-945, South Steam Flare, Natural Gas, Process Gas	2,700	64,800
S-992, Emergency Flare, Natural Gas, Process Gas	13,200	316,800
S-1012, West Air Flare, Process Gas	2,755	66,120
S-1013, Ammonia Plant Flare	2,670	64,080

*ii. The Draft Permit Impermissibly Omits NSPS Provisions on Flare Regulation, Applicable Limits, and Compliance Monitoring Requirements*

Although Table IV-Y and Table IV-AB show that 40 C.F.R. § 60.18 control device requirements are applicable to the seven refinery flare systems at the refinery, all of the limits and monitoring requirements for flare system management and emission control have been impermissibly omitted from Section VII Applicable Limits and Compliance Monitoring Tables.

Flare performance regulations at 40 C.F.R. § 60.18 detail important elements and compliance thresholds concerning visible emissions, flame detection, heat content, flare tip velocity and flare design. Each of these elements must be incorporated into Section VII Applicable Limits and Compliance Monitoring Requirements. In cases where the regulation allows an alternate approach to compliance, the permit must identify the approach to be used and the permit must incorporate the alternate technique or requirement for enforceability. The draft permit does not contain this level of specific compliance monitoring and enforceability for 40 C.F.R. § 60.18 requirements.

Compliance assurance monitoring for flare tip velocity requirements will depend on the refinery's capability to monitor flare main gas flow and compliance with 40 C.F.R. § 60.18 cannot be assured unless each flare system main to the flares has a gas flow meter and a

requirement for monitoring such flows. Maintenance of flow meters and flow recording should be incorporated into applicable limits and compliance monitoring requirements in the permit.

Further, Permit Condition #12016 contains the following language regarding monitoring requirements for equipment installed or modified on the "Clean Fuels Project:"

"Emission calculations from flaring events: Tosco is not required to specifically measure flow to the flares, but must use knowledge of process depressurization rates and duration of venting to calculate emissions."

See Title V Permit, p. 577.

Such language is objectionable, contrary to verifiable compliance assurance requirements, and raises questions about whether flare flows are currently being monitored by gas flow meters at the refinery. Commenters cannot determine how the refinery can possibly verify flare tip velocities under these conditions. Control efficiency of HAPs and VOCs must be verified even during "flaring events" when, for example, sulfur recovery units go down and there is no other place to incinerate waste process gases. The District should verify which flare mains are monitored and recorded for gas flows before this permit is issued. No flaring system should be allowed where there is no gas flow monitoring. Flare gas flow monitoring systems should also be listed in Section VII tables for Applicable Limits and Compliance Monitoring Requirements. Finally, the permit should state a maximum flow rate capacity for each flaring system (using a design value for BTU) that ensures compliance with tip velocity requirements. The District should also require that exceedances of maximum flow rates be reported as permit violations.

*iii. Provisions in the Proposed Permit for Flare Compliance Monitoring Requirements Based on 98% Destruction Efficiency for Hazardous Air Pollutants Are Not Verifiable*

Flame sensing, by itself, will not verify a 98% destruction efficiency for HAPs or will it verify requirements for 20 ppmv output emission limits on incineration operation contained in Table VII-A. See Title V Permit, pp. 642-644. The District's assumption in equating the presence of flame with a destruction efficiency of 98% has no basis. Rather, flare combustion efficiency depends on ambient temperature, wind speed, the BTU content of the gas, gas flow, flare design, and the nature of compounds found in the combustible gases.

Although the assumption that flares have a 98% destruction efficiency is a common industry assumption that has also been incorporated into EPA practices, available scientific evidence casts considerable doubt on the ability of traditional open air flares to achieve such high destruction efficiencies. For example, during field tests conducted of actual flares of gases emitted by sour crude wellhead facilities, measured flare destruction efficiencies were in the range of 82-84%.<sup>19</sup> A review using a model for flare combustion indicates that

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<sup>19</sup> Investigations of Flare Gas Emissions in Alberta, Final Report to Environment Canada, Alberta Energy and Utilities Board and Canadian Association of Petroleum Producers, M. Strosher, Environmental Technologies, Alberta Research Council, November 1996, Page 112. (On file with the commenter).

“[f]laring of gases in the free atmosphere is a process routinely used in the petroleum and chemical industry for the disposal of unwanted flammable gases and vapours. It is, however, rarely successful in attainment of complete combustion because entrainment of air into the region of combustion gases restrict flame sizes to less than optimum values. These restrictions occur because the entrained air reduces hydrocarbon concentrations below values needed to support combustion.

Equations which incorporate entrainment effects have been previously developed by Leahey and Schroeder for estimating flame dimensions as functions of gas exit velocity, stoichiometric mixing ratios and wind speed. These equations are used to estimate the rate of sensible heat exchange and heat radiation associated with flame behaviors for different hydrocarbons and variety of conditions related to exist gas velocity and wind speeds. Results of the calculations show that heat releases are usually much less than those which should accompany complete combustion. They [the calculations] imply that actual flaring activities result in combustion efficiencies which are routinely less than 50 percent.”<sup>20</sup>

If the refinery cannot demonstrate, using a field test method, that a 98% flare destruction efficiency is actually achieved for the highest gas flow rates that might occur, then the District should require the refinery to use an alternate flaring technology, such as a tip incinerator, to show compliance with the 98% destruction efficiency standard for HAPs. Failure to require such verification to show compliance with HAP and VOC control rules results in a large, unacknowledged, troublesome inventory of VOCs, HAPs, toxic and odor emissions with potential for significant health and environmental effects.

The Texas Natural Resource Conservation Commission (“TNRCC”) has recently confronted the problem of uncontrolled or poorly controlled VOC and HAP emissions from flares in a proposed rulemaking. The TNRCC recently concluded the following in regard to petrochemical facilities in the Houston area and the need for additional controls on reactive VOCs from flares and other sources:

“The proposed [rule] amendments affect a wide variety of industrial VOC sources and are intended to reduce emissions of highly-reactive VOCs from four key industrial sources: fugitives, flares, process vents, and cooling towers. Current inventory indicates that approximately 48% of the highly-reactive VOCs come from fugitives, 30% from flares, 8% from vents, and 7% from cooling towers. These types of VOC emissions occur at a wide variety of industrial sites, including petroleum refineries, synthetic organic chemical, polymer, resin, or methyl tert-butyl ether manufacturing processes, and miscellaneous chemical processing and handling operations in HGA.”

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<sup>20</sup> A Theoretical Assessment of Flare Efficiencies as a Function of Gas Exit Velocity and Wind Speed by D.M. Leahey, M. B. Schroeder, M.C. Hansen, paper presented at Flaring Technology Symposium, February 21, 1996 sponsored by Environmental Services Association of Alberta, Environment Canada and Alberta Research Council.

TNRCC, Chapter 115 - Control of Air Pollution from VOCs, Rule Log No. 2002-046b-115-AI, available at: [http://www.tnrcc.state.tx.us/oprd/rule\\_lib/proposals/02046b115\\_pro.pdf](http://www.tnrcc.state.tx.us/oprd/rule_lib/proposals/02046b115_pro.pdf). (Emphasis added).

*iv. Sulfur Dioxide Emission Reporting Data Suggests the Excessive Flaring of Acid Gases by the Refinery and Poor Air Pollution Control Practices*

The following table shows 2000 sulfur dioxide emissions for each of the Avon Refinery's flaring systems:

<b>Emission Unit Descriptor and Flare Description</b>	<b>2000 Sulfur Dioxide Emissions (tons)</b>
S-854, East Air Flare	499.5
S-943, Tank A-691 Safety Flare, Natural Gas, Process Gas, Butane	0.118
S-944, North Steam Flare, Natural Gas, Process Gas	499.5
S-945, South Steam Flare, Natural Gas, Process Gas	4.9
S-992, Emergency Flare, Natural Gas, Process Gas	499.5
S-1012, West Air Flare, Process Gas	624.3
S-1013, Ammonia Plant Flare	NR

Four of the flare systems show a considerable history of high sulfur dioxide emissions; the following table shows annual sulfur dioxide emissions from each of the four units from 1993 to 2001:

<b>Flare</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>
S-1012	269.3	315.7	329.8	329.8	329.8	290.5	774.6	774.6	624.3
S-854	269.3	315.7	329.8	329.8	329.8	2986.0	774.6	774.6	499.5
S-944	269.3	315.7	315.7	315.7	315.7	14.2	774.6	774.6	499.5
S-992	174.3	315.7	329.8	329.8	329.8	826.2	38.7	38.7	499.5

The emission data for sulfur dioxide in the table is of concern for a number of reasons. First, the data shows a trend of increased sulfur dioxide flaring emissions. The data do not reflect a program of continuous improvement. U.S. EPA has instituted enforcement actions in cases of excessive flaring under the requirement of the NSPS preamble calling for good air pollution control practices.

Second, the data reported in the District emissions inventory, and reflected in the table above, appear to be a rote calculation exercise rather than a valid attempt to measure sulfur dioxide emissions from flaring. It is highly unlikely, for example, that three or four of the flaring systems would have exactly the same sulfur dioxide emission in a given year, or that a single flaring system would have the same emissions year after year. *See* the recurring numbers –

269.3, 315.7, 329.8, 499.5, and 774.6 in the table above. The unrealistic nature of the data in this regard raises questions as to whether the refinery is properly reporting its flare related sulfur dioxide emissions based on gas flow rates and sulfur content measurements instead of rote calculations and robotic acceptance of unchallenged assumptions about flaring emissions.

v. *The Draft Permit Fails to List Certain District Regulations as Enforceable Requirements for Flares*

Tables IV-Y, IV-AB, and VII-A (Title V Permit, pp. 77-80, 83-85, and 641-643 respectively) omit controlling District Regulations relevant to the operation of flare emission units and flare devices as emission controls. Of particular concern are the failure to incorporate applicable requirements, emission limitations, ambient limitations and monitoring requirements of Regulation 1-301 (odors), Regulation 7 (odors), Regulation 9-1 (sulfur dioxide) and Regulation 9-2 (hydrogen sulfide).

vi. *Other Issues Relating to the Refinery Flares*

First, flaring occurs frequently at Bay Area refineries. The District has included flaring controls in its Clean Air Plans for over ten years, but does not require monitoring sufficient to comply with federal regulations for flares. So little flare monitoring has been done by the District that some refinery neighbors have instituted their own camera surveillance of flaring to document the large flaring events which neighbors frequently witness. Often regulators do not know about large flaring events. At one community meeting attended by members of Communities for a Better Environment (“CBE”), refinery neighbors told regulatory agency staff about large flaring events occurring over weekend periods or at night, when inspectors were not available. One agency staff person present at the meeting stated that he was not aware of the particular events, and asked the community members to notify him in the future when such events occurred. While this was good advice, it should not be the community’s job to ensure flare tracking. Monitoring options are available to collect actual data on flares. The District should correct this in its Title V permit for the oil refineries by adopting stringent monitoring requirements for flares. *See* footnote 13.

Second, the District appears to have omitted BAAQMD Regulation 6-301 (opacity limits) from the list of federal requirements to which the refinery flares are subject. The opacity regulations must be included in order to finalize the permit. In addition, the District will need to add flare opacity monitoring to Table VII of the permit. Regulation 6-301 requires that flare emissions shall not exceed Ringlemann No. 1 for more than 3 minutes in any hour and a monitoring method sufficient to demonstrate compliance under these conditions is required. Because of the short time interval between the onset of an episode and the time at which an episode must be monitored, the usual monitoring method of visual inspection will not be sufficient to consistently assure compliance with rule 6-301. The District should therefore require a continuous remote viewing system for flares at the refinery. Remote viewing systems are cited as one of the minimum acceptable monitoring methods for elevated refinery flares in the CARB-CAPCOA-

EPA guidance.<sup>21</sup> We maintain that a remote viewing system is the only way to ensure adequate monitoring of short-duration flare episodes as well as longer events in which the flare characteristics change over time.

Third, a recent report<sup>22</sup> by the U.S. EPA Office of Regulatory Enforcement indicates that excessive flare emissions at refineries may be due to frequent, routine flaring. “EPA investigations suggest that flaring frequently occurs in routine, nonemergency situations or is used to bypass pollution control equipment. This results in unacceptably high releases of sulfur dioxide (“SO<sub>x</sub>”) and other noxious pollutants and may violate the requirement that companies operate their facilities in a manner consistent with good air pollution practices.” *Id.* at p. 1. The District should place additional operational requirements on the refinery to insure that good air pollution practices are being followed, and to reduce the probability of process upsets. Under 40 C.F.R. § 60 Subpart J, the District has the authority to require these types of limitations.

Finally, the District seems to be improperly exempting flares from SIP Regulation 8-2 (Organic Compounds, Miscellaneous Operations) presumably because SIP Regulation 8-1-110.3 exempts “[a]ny operation or group of operations which are related to each other by being a part of a continuous process, or a series of such operations on the same process material, which are subject to Regulation 8, Rule 2 or Rule 4, and for which emissions of organic compounds are reduced at least 85% on a mass basis.” If this is the case, the exemption is inappropriate because, in practice, flares do not appear to achieve the required 85% destruction efficiency on a consistent basis. Available scientific evidence casts considerable doubt on the ability of traditional open air flares to achieve such a high destruction efficiencies. For example, during field tests conducted at sour crude wellhead facilities, flare destruction efficiencies were measured in the range of 82-84%.<sup>23</sup>

Therefore, the District should either regulate flares under Regulation 8-2 or develop a monitoring procedure that can verify a greater than 85% destruction efficiency at refinery flares. In addition, in order for flares to qualify for an exemption under Regulation 8-1-110.3, a test method will need to be developed to verify another requirement of this rule, that “at least 90% of the organic carbon shall be oxidized to carbon dioxide.”

**e. Issues Related to the Avon Refinery Title V Compliance with Final MACT Standard for Catalytic Crackers, Sulfur Recovery Units and Catalytic Refining Units at a Future Effective Date During the Term of the Proposed Permit**

On April 11, 2002, U.S. EPA published a final rule providing a Maximum Achievable Control Technology (“MACT”) standard applicable to catalytic crackers (CC), sulfur recovery units

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<sup>21</sup> “Periodic Monitoring Recommendations for Generally Applicable Requirements in SIP,” June 24, 1999 available at <http://www.arb.ca.gov/fcaa/tv/tvinfo/pmrec624.pdf>.

<sup>22</sup> *Enforcement Alert*, Volume 3, Number 9, October 2000, U.S. EPA Office of Enforcement and Compliance Assurance, EPA 300-N-00-014 (revised), attached as Exhibit F.

<sup>23</sup> See footnote 19.



(SRU) and catalytic refining units (CRU).<sup>24</sup> Commenters have requested all aspects of the refinery's permit application but no information has been provided to the public that indicates that the refinery has supplemented its permit application or compliance certification to address this federal rule, which will become effective for most existing refinery units on April 11, 2005. There is no evidence from evaluation of the draft permit that such requirements for compliance with the CC/SRU/CRU MACT standard has been incorporated into the draft permit.

#### **f. Issues Relating to the Methyl Tertiary Butyl-Ether Plant**

OCE's review of the permit application indicates that there is no information on federally applicable requirements germane to the MTBE plant other than a few limited permit sections, primarily containing District requirements. Accordingly, the application and draft are incomplete. Some of the federal requirements that the District should have evaluated for applicability are discussed below.

First, the District should evaluate whether the MTBE plant is regulated by the Hazardous Organic NESHAPs for the Synthetic Organic Chemical Manufacturing Industry ("SOCMI HON") (40 C.F.R. § 63, Subparts F & G) or the Refinery MACT (40 C.F.R. § 63, Subpart CC). According to the Refinery MACT preamble:

"The applicability of subpart CC versus the HON or other MACT standard to an emission point is determined by the primary product produced in the unit. The primary product is the product that is produced in the greatest mass or volume that the unit produces. For example . . . if a facility operated a process unit that produced MTBE as the primary product and also produced small quantities of a mixed hydrocarbon stream, the unit would be subject to the HON because the unit produces MTBE as the primary product and the HON applies to chemical manufacturing units that produce MTBE."<sup>25</sup>

Commenters have reviewed a Process Flow Diagram of the Avon Refinery<sup>26</sup> and the primary purpose of the MTBE plant appears to be to produce MTBE, so the MTBE plant must be regulated by the SOCMI HON. If the primary product of the MTBE plant is, in fact, MTBE, then the District should regulate the plant under 40 C.F.R. § 63, Subpart CC. In addition, since the MTBE plant is subject to NSPS Subpart QQQ,<sup>27</sup> it falls under the applicability requirements of the SOCMI HON regulations.

Moreover, more specific information is needed in the permit to confront the grouping scheme of distillation unit process vents through determination of Total Resource Effectiveness indexes.

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<sup>24</sup> 67 Fed. Reg. 17762 (April 11, 2002); 40 C.F.R. § 63, Subpart UUU.

<sup>25</sup> 60 Fed. Reg. 43244, 43253 (August 18, 1995).

<sup>26</sup> Tosco Drawing 20-BA-315, contained in one of the facility's Subpart FF reports on benzene waste compliance.

<sup>27</sup> See Table IV-DG – Fugitive Sources Applicability Requirements, Title V Permit, p. 496.

Second, NSPS Subpart GGG must be an applicable requirement because the refinery submitted a report under 40 C.F.R. § 60.487 for the MTBE plant on December 22, 1995. Accordingly, the District must include Subpart GGG in Table IV-DG – Fugitive Sources Applicable Requirements, in other equipment-specific Tables in Section IV, and in emission limitation and compliance certification assurance and monitoring methods in Section VII.

Third, the heading for Permit Condition #10526 on page 566 of the permit incorrectly identifies emission unit S-782 as “No. 2 HDS Cooling Tower.” Please correct this error.

Finally, although Permit Conditions #10525 and #10526 contain emission limitations covering precursor organic compounds (“POC”) from the MTBE plant and its methanol tank, Section VII of the permit (Applicable Limits and Compliance Monitoring) fails to include these conditions, and therefore there are no monitoring requirements in the permit for these conditions. Monitoring should be included in the permit. Moreover, any compliance monitoring requirements for MTBE, Ethyl Tertiary-Butyl Ether, or methanol should include test methods that specifically identify the chemical identity of the POC emitted and should determine total emissions by adding the total mass rates of each chemical POC emission. The Applicable Limits and Compliance Monitoring requirements in the permit should prohibit the facility from using POC test methods that measure POC emissions “as carbon” since such POC test methods will dramatically understate emissions of oxygen-containing compounds.

#### **D. Additional Suggestions for Improving the Title V Permit and Miscellaneous Informational Requests**

Table II A– Permitted Sources is reproduced on pages 607 through 623 of the permit. Please remove or indicate the purpose of reproducing this Table in the permit.

The permit needs to have an index linking specific sources and abatement devices to pages containing information about the specific sources and abatement devices. This permit is very large and it is difficult for a reviewer to find all the relevant information related to any particular source or abatement device. The permit should also have an index for permit conditions and a more detailed table of contents.

The formatting of the table-titles in section VII of the permit makes it difficult to easily ascertain the sources that are covered by each table. A good example of this problem is the center-justified title of Table VII-A. *See* Title V Permit, pp. 650-651. Please reformat all table-titles so that the source numbers are easy to read (e.g., place source lists in left-justified columns and list only one source per line).

Finally, many of the Section VII tables are all placed together under Table VII-A. It would be far better to assign unique descriptions to each Section VII table based on differentiation by different emission units or groups of emission units.

**E. Conclusion**

For the forgoing reasons the Title V permit for the Tesoro Refining and Marketing Company should not be finalized in its current form. Thank you for this opportunity to submit public comments. If you have any questions please contact Marcie Kever at 415-369-5351.

Sincerely,

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