

December 16, 2004

Ms. Deborah Jordan  
Director, Air Management Division  
**United States Environmental Protection Agency**  
75 Hawthorne Street  
San Francisco, CA 94105

Subject: Comments on reopening of Title V permits for Facilities  
A0010, Chevron Products Company (Richmond)  
A0011, Shell Oil Products US (Martinez)  
A0016, ConocoPhillips Refinery (Rodeo)  
B2626, Valero Refining Company (Benicia)  
B2758-59, Tesoro Refining and Marketing Company (Martinez)

**ALAMEDA COUNTY**  
Roberta Cooper  
Scott Haggerty  
(Chairperson)  
Nate Miley  
Shelia Young

**CONTRA COSTA COUNTY**  
Mark DeSaulnier  
Erling Horn  
Mark Ross  
Gayle Uilkema  
(Secretary)

**MARIN COUNTY**  
Harold C. Brown, Jr.

**NAPA COUNTY**  
Brad Wagenknecht

**SAN FRANCISCO COUNTY**  
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Jake McGoldrick  
Gavin Newsom

**SAN MATEO COUNTY**  
Jerry Hill  
Marland Townsend  
(Vice-Chairperson)

**SANTA CLARA COUNTY**  
Erin Garner  
Liz Kniss  
Patrick Kwok  
Julia Miller

**SOLANO COUNTY**  
John F. Silva

**SONOMA COUNTY**  
Tim Smith  
Pamela Torliatt

Jack P. Broadbent  
**EXECUTIVE OFFICER/APCO**

Dear Ms. Jordan:

Thank you for your comments on the above reopening of Title V permits, dated April 14, 2004.

The District has made some changes in response to comments. The details are in the District response, contained in Attachment A. The response refers to your comments by number. A copy of your letter that numbers the comments is enclosed in Attachment B.

EPA submitted additional comments on the Shell and ConocoPhillips permits in a letter of October 31, 2003. A separate letter will address those comments.

The District has decided to issue the permits. The final permits and the final statements of basis/permit evaluations will be sent separately. Enclosed are all final responses to comments. If you have any questions about this action, please call Steve Hill, Manager, Permit Evaluation, at (415) 749-4673.

Sincerely,

Jack P. Broadbent,  
Executive Officer/  
Air Pollution Control Officer

Enclosure

SAH:myl

Cc: Gerardo C. Rios, USEPA Region IX

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Attachment A

The District has prepared the following responses to the comments contained in this letter.

Each comment consists of 1) a suggestion for action or change, and 2) the argument, if any, supporting the suggestion.

The comments identified by the District have been numbered. Refer to the attached copy of the original comment letter for the comment numbers.

	<b>Response</b>
1.	The citation of 9-1-313 has been marked as federally enforceable in Table IV-U. Because 9-1-313 is identical for the SIP and non-SIP versions of this rule, it is listed under the citation for the current version of the rule (non-SIP) and not under the SIP version. Only requirements that are different in the SIP version are cited under the SIP version.
2.	The mistake has been corrected in the permit.
3.	The mistake has been corrected in the permit.
4.	The mistakes have been corrected in the permit. A "Y" has been inserted into the column for federal enforceability for fuel flow meters in Table VII.A.3.2, except for those required only by Condition #16686 per Regulation 2-1-234 (the definition of modification).
5.	The mistake has been corrected in the permit.
6.	The mistake has been corrected in the permit.
7.	There are no SIP-approved limits on hours of operation that apply to these diesel engines. The throughput limits are all imposed because of the non-SIP requirements of 9-8, or to limit engine use to the criteria under which these engines used to be exempt from permits. In either case, the limitations are not federally enforceable.
8.	<b>Chevron:</b> Subpart J applicability is included in the SOB. Subpart A is included in Table IV-A.2.1. <b>Conoco:</b> Subpart A&J applicability is included in the SOB. <b>Shell:</b> New Flare-oxidizer summary table (in SOB) shows applicability <b>Tesoro:</b> The new Flare and Thermal Oxidizer Table in the SOB shows applicability. <b>Valero:</b> New Flare-oxidizer summary table (in SOB) shows applicability.
9.	Each permit has been amended to show the sources that are abated by each flare. <b>Chevron:</b> Table II-B shows the sources that are abated by each flare. <b>Conoco:</b> Flare descriptions have been added to SOB. The flared sources are now listed in permit Table II-A; a Part 63 applicability determination discussion has been added to the SOB. <b>Shell:</b> Table II-B shows the sources that are abated by each flare. <b>Tesoro:</b> The sources that are abated by each flare have been added to the SOB and appear in Table II-B of the permit. <b>Valero:</b> Four flares were added to Table II-C, Abatement devices.
10.	This mistake has been corrected in the permit.
11.	The statements of basis have been modified to reflect the fact that all of the flares are exempt from Regulation 8-2, and the basis for that exemption. EPA's comment appears to suggest inclusion of a 90% control efficiency requirement in the Title V permit. Pursuant to 8-1-110.3, a source is exempt from Regulation 8 if it is abated by at least 90%. This is an applicability criterion. If the exemption obtains, Regulation 8 is not applicable. The District has explained why the exemption does in fact obtain. Title V mandates only that requirements that are actually applicable be incorporated in the permit. Title V does not mandate incorporation of applicability thresholds for standards that do not apply.
12.	Title V does not require monitoring to determine applicability of a federal standard such as Subpart J. Where a refinery has stated that a particular flare is used only for emergency malfunction and process upset use only, and where this statement is not contradicted by fact, the District proceeds on the assumption that the flaring activity is exempt from 60.104(a)(1). The District assumes that EPA concurs with these findings, because EPA has also implemented this standard for many years and, as far as the District is aware, has

	<p>not found otherwise. Until 60.104(a)(1) becomes applicable, Title V monitoring is not required to assure compliance with it. As noted in the preceding response, Title V (in some instances) mandates monitoring for requirements that do apply, but does not mandate monitoring for requirements that do not (i.e., monitoring for applicability).</p> <p>EPA's comment states that "the District has added a federally enforceable permit condition restricting these flares to emergency malfunction and process upset use only." The District characterizes its action differently. The flares in question were already subject to this "restriction" by virtue of Subpart J itself, in the sense that if the flares were used for other purposes, compliance with Subpart J would obtain and compliance would be enforceable immediately in federal court. For the reasons set forth in the SOB, the District sought to make this same restriction enforceable in state court, and hence created this permit condition. Because the restriction was already federally enforceable by virtue of Subpart J, it was labeled as federally enforceable in the permit. However, the District does not believe this condition, which was itself a condition designed to help assure compliance, is required under Title V, nor is there a Title V requirement to establish monitoring to further implement it. In fact, District Regulation 12-11 provides for substantially the same information collection and reporting EPA appears to be requesting. 12-11 is not presently federally enforceable, but will become so if and when it is approved into the SIP.</p>
13.	<p>Flaring events that do not qualify as emergencies or process upsets are violations of the permit and, presumably, violations of the NSPS if the refinery is not complying with the NSPS (including monitoring). Such violations must be reported as deviations, and may be subject to enforcement action.</p>
14.	<p>These requirements were applicable at each facility, however the different approaches were taken regarding whether they resided in the permit as generally applicable requirements versus source-specific requirements, and also whether monitoring was required. In response to EPA's comment, all of the permits will list 6-301, 6-305, 6-310, and 6-311 as source-specific applicable requirements.</p> <p><b>Chevron:</b> Flow meters and record keeping have been added to the monitoring requirement for 6-301.</p> <p><b>Valero:</b> 6-305, 6-310 and 6-401 added to flare tables IV-A8.1, A8.2 and A9.</p> <p><b>Tesoro:</b> Regulations 6-301, 6-305, 6-310, and 6-401 have been added to the applicable requirements for flares and thermal oxidizers.</p> <p><b>Shell:</b> Permit has been amended to list 6-301, 6-305, 6-310, and 6-311 as applicable requirements.</p>
15.	<p>Response 11, above, is relevant to this comment as well. The Statement of Basis explains why the District believes certain flares are exempt from Regulation 8. 8-1-110.3 defines an applicability criterion. The District's reasoning for why it the criterion is not met (i.e., why flares qualify for the exemption and are not subject to Regulation 8), depends in part on an assumption of proper operation of the flares. The conditions referred to in EPA's comment are to help ensure proper operation. Because these conditions are not monitoring imposed to assure compliance with an applicable standard, they are not federally enforceable.</p>
16.	<p>The flow rate, flame detection, and composition monitoring have been added as conditions to help ensure that the exemption criterion contained in 8-1-110.3 is met. Note that this is not an enforceable limit, however. The FE flag has been revised to "N."</p>

17.	The District has not conducted a de novo design review of the flares. As a result, the requested information is not part of the basis for the District's applicability determination, and does not appear in the statement of basis. The District relies in part on the OSHA requirement that documentation of flare system design basis and testing information be kept at the facilities, and that flares be operated consistent with the design basis. The flare mass flow limits contained in the Title V permits reflect these design limits, reported by the refineries to the District. The District's understanding is that OSHA-mandated design review involves a complex multi-variable analysis. The District does not have experience in reviewing this type of analysis. That the analysis was done pursuant to OSHA requirements provides assurance that the capacity figures reported by the refineries are reliable estimates.
18.	A table has been added to each statement of basis listing all flares and thermal oxidizers and providing the NSPS applicability determination. <b>Chevron:</b> Subpart J applicability is included in the SOB and is also included in the applicable requirements table in the permit. <b>Conoco:</b> already included in permit (H2S monitor). <b>Tesoro:</b> See response to Comment 23. <b>Valero:</b> added new tables IV and VII for A57 Thermal Oxidizer. See #43 regarding applicability of Subpart J. <b>Shell:</b> Subpart J applicability is included in the SOB and is also included in the applicable requirements table in the permit.
19.	In general, Regulation 6 is already listed as applicable to thermal oxidizers as a generally applicable requirement. The conditions that exist in a thermal oxidizer do not, in the District's opinion, justify considering thermal oxidizers as a group to require consideration of Regulation 6 as a specifically applicable requirement. When the gas being oxidized is introduced only in gaseous form, the likelihood of visible emissions is very low. However, 3 of the permits-Tesoro, Valero, and Valero Asphalt, do have thermal oxidizer tables that list Regulation 6.
20.	40 CFR 63.354(c)(1) (Benzene NESHAPS) provides an example of a recent EPA regulatory determination establishing appropriate monitoring to assure compliance with efficiency requirements for thermal oxidizers. In that rule, EPA has determined that temperature monitoring alone is adequate. Moreover, this comment appears inconsistent with EPA's position that it will not require Title V permitting authorities to review the sufficiency of existing monitoring contained in a federal or other standard.
21.	All of the permits have been modified to require temperature monitoring to show compliance with the oxidizer efficiency requirements.
21a.	All of the permits have been modified to require temperature monitoring to show compliance with the oxidizer efficiency requirements. See response to Comment 20 for a discussion of the reason that flow monitoring is not appropriate.
22.	The frequency for source tests for federal requirements are set in the respective standards. This comment appears inconsistent with EPA's position that it will not require Title V permitting authorities to review the sufficiency of existing monitoring contained in a federal or other standard
23.	Tesoro: Incorporation of Subpart J for these units was not part of the Revision 1 proposal. Since the issue deserves consideration based on an opportunity for comment by all interested parties, the District will address applicability and incorporation of Subpart J for these units in the next revision. In the meantime, no Title V permit shield is provided, and so the Title V permit does not impact the applicability of Subpart J as a federal matter.
24.	Regulations 6-310 and 6-401 have been added to the requirements. Regulation 6-311 does not apply.
25.	Regulation 6 has been added to the requirements for the thermal oxidizers in Tables IV – Xb, Xc, and Xd.
26.	Regulation 10 has been added to flares S854, S943, S944, S945, S1012, and S1013.
27.	Federally enforceable monitoring for 60.18(c) has been added for flares S854, S992, and S1013.
28.	Monitoring has been added for flare opacity under Regulation 6 in Section VII.

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29.	The mistake has been corrected in the permit.
30.	The change has been made to the permit, based on the argument made in the comment.
31.	The mistake has been corrected in the permit. Condition #18656, Part 7 has been modified to include S6015.
32.	The mistake has been corrected in the permit for Chevron.
33.	<b>Chevron:</b> No change has been made to the permit. Regulation 6, Particulate Matter and Visible Emissions, is a generally applicable requirement and applies to thermal oxidizers. Section 6-302 only applies if an opacity-sensing device is required by District regulations. Sections 6-301, 6-310, and 6-311 are included in the generally applicable requirements, and are included in individual source tables only when the rule is of particular relevance to the source.
34.	First, permit conditions imposed to ensure that an operation is exempt from a federal requirement need not be federally enforceable to be valid. Second, this condition was added at EPA's request to make sure that the basis for the determination that the flare was not subject to the fuel H2S requirement was included in the permit.
35.	The Chevron permit has been changed based on the argument in the comment.
36.	No change has been made to the permit. Flares that are designed to receive low-Btu gas are equipped with supplemental fuel gas to ensure that the gas vented to the flares has sufficient heating value. The new flare monitoring rule, 12-11, requires vent gas composition monitoring. The District presumes that the systems are designed to ensure that flared gases are combustible and are working properly. The monitoring required by 12-11 will provide a means of verifying this. 12-11-503 requires monitoring to ensure that flame is present. A permit condition would be redundant. See also the response to comment 12 for explanation of why Title V does not require that monitoring be imposed with regard to applicability criteria.
37.	Monitoring has been added to Table VII A.2.1 for S6010, which is downstream of A6020 requiring monitoring of both flame composition and flowrate.
38.	A summary table of Flare Services has been added to the SOB. S19 is not subject to Subpart J based on date of construction.
39.	S19 is not subject to Subpart J based on date of construction.
40.	This flare is not subject to a federally enforceable applicable requirement. There is, therefore, no basis for adding a federally enforceable monitoring requirement. The monitoring required by BAAQMD Regulations 12-11-401.1 and 12-11-401.6 will demonstrate compliance with Condition 20806 Part 7. These would become federally enforceable once 12-11 is adopted in the SIP.
41.	NSPS Subpart A is included in the Flare Summary Table for S19.
42.	Section 60.18 is not applicable. 60.18 only applies to facilities that are subject to subparts that specifically refer to this section. There are currently no applicable subparts for S19 that refer to 60.18.
43.	Incorporation of Subpart J for these units was not part of the Revision 1 proposal. Since the issue deserves consideration based on an opportunity for comment by all interested parties, the District will address applicability and incorporation of Subpart J for these units in the next revision. In the meantime, no Title V permit shield is provided, and so the Title V permit does not impact the applicability of Subpart J as a federal matter.
44.	BAAQMD regulations 6-301, 6-305, 6-310 and 6-401 have been added as source-specific applicable requirements to Table IV for S16, S17, S18 & S19. Monitoring is visual.
45.	<b>Valero:</b> In general, Regulation 6 is a generally applicable requirement, and applies to these oxidizers. The District has determined, based upon the past performance of these units and the nature of the vapor streams being abated, that the listing of the requirements in Section III and not in Section IV is appropriate because the margin of compliance is sufficiently large so as not to justify additional monitoring. Nonetheless, tables have been added for A57 that include Regulation 6.
46.	The requirements of 61.349(c) are covered by the Source Tests in Part 8 of Conditions 11879, 11882, 11888 & 13319. Thereafter the performance is monitored by continuous temperature monitoring per Parts 5 & 6. The new tables for A57 include monitoring for both 61.349(a)(2)(i)(A) (95% control) and 349(a)(1)(i) (Fugitives < 500 ppmv).
47.	The excursion language has been removed as part of Revision 1.

48.	NSPS Subpart A has been added as an applicable requirement for oxidizer A420 in Table II-B, and for flare S398 in Tables IV-L and VII-L.
49.	Rule 6-305 (nuisance fallout) was not originally included in Table IV-L for flares S296 and S398 because it is listed in Table IV-All Sources as a generally applicable requirement. Rule 6-305 has been added to Tables IV-L and VII-L. Rule 6-311 is not applicable to flares because this rule is intended to limit the emission of particulates to a fraction of the amount of solid material "processed" at some source, and not necessarily to any emission stream that may contain particulate matter. Because source testing of these flares is impractical, compliance with this rule could not be established in any case.
50.	Although Regulation 6 is generally applicable to all refinery operations, it has not been included as a specific applicable requirement for oxidizer A420 because this device abates emissions from the two regulated marine berths. The emission stream to A420 consists of displaced vapor resulting from loading of refined products to ships. Unlike flares, which receive offgas from process units under upset conditions, A420 is not likely to receive slugs of liquid. Visible emissions and fallout have not been experienced at A420 and are not expected under any foreseeable conditions. Thus, Regulation 6 is not considered to be specifically applicable to this oxidizer.
51.	Flow monitoring is not necessary because the margin of compliance is very large. An annual source test is unnecessary for the same reason. A420 is substantially underloaded; design capacity is 20,000 bbl/hr, but Condition 4336 limits throughput to 25,000 bbl/day (annual average). Source test 92119 demonstrated a NMHC destruction efficiency exceeding 99.9% during a loading operation with a maximum rate of 8,000 bbl/hr.
52.	S1772 Flare has been added to Part 19 of Condition 18618.
53.	A table in the SOB regarding NSPS applicability to flares and thermal oxidizers was added.
54.	The permit shield in Table IX-A4 contains an error. EPA is correct that the thermal oxidizers are subject to 60.104(a)(2). This is included in Table IV-AQ. It is supposed to be a shield from 60.104(a)(1). Since the oxidizers are subject to the limits in 60.104(a)(2), then 60.104(a)(1) does not apply. As EPA states in the comment, the thermal oxidizers would combust more than natural gas. The mistake has been corrected in the permit.
55.	The mistake has been corrected in the permit. Subpart A has been added as an applicable requirement for all flares and thermal oxidizers subject to NSPS Subpart J. Section 60.18 is not applicable. 60.18 only applies to facilities subject to subparts that specifically refer to this section.
56.	The mistake has been corrected in the permit.
57.	Regulation 6 is already listed as a generally applicable requirement in Section III of the Title V permit, which covers the thermal oxidizers. As a result, no change has been made to the permit.
58.	The mistake has been corrected in the permit.
59.	The mistake has been corrected in the permit. Monitoring of flow rate, fuel value, and flame monitoring have been added for S4201 and S1470 in Section VII tables for these two sources.
60.	The mistake has been corrected in the permit. A continuous temperature monitor has been added as requirement in Part 7 of Condition # 4288.
61.	Subparts YYYY and EEEE have been added to the permit.
62.	The changes have been made. Subpart UUU was added to Tables IV-A1, A2, A4 and D1.
63.	The details of the requirements of 40 CFR 63, Subpart UUU, will be added to the permits for the Chevron, Tesoro, ConocoPhillips, and Valero refineries using the reopening process by April 11, 2005. At this time, the facilities understand that the requirement is in the permits generally and that the refineries have an obligation to comply by April 11, 2005, unless they seek an extension pursuant to 40 CFR 63.1563(c).
64.	Valero: Monitoring for SIP 8-10-301 and 8-10-302 was added to Table VII – Refinery General, consistent with the Chevron permit. However, adding this monitoring to each source table would not be useful since every hydrocarbon vessel in the refinery is subject to 8-10. It is appropriately located in the general refinery table.
65.	The District is analyzing this issue, and will address the issue of whether Title V

	requirements apply to these separately-owned facilities in another forum. Because the hydrogen plant is not owned by Tesoro, inclusion of requirements concerning it (including a compliance schedule) in Tesoro's permit is not appropriate. Title V sources may be issued separate permits. It follows that even if it is determined that the hydrogen plant must obtain a Title V permit, this does not indicate a deficiency in the Tesoro permit.
66.	The District will address the issue of whether Title V requirements apply to these separately-owned facilities in another forum.
67.	The District will address the issue of whether Title V requirements apply to these separately-owned facilities in another forum.
68.	The District will consider this recommendation for the future, but presently does believe addition of the compressors to the permit is required under Title V. Title V does not authorize establishing conditions to assure compliance with Subpart J unless and until Subpart J is determined to be applicable (i.e., flares are used for routine purposes).
69.	Tesoro was unable to provide documentation to show that the firing rate of No. 6 Boiler was designed to be 848 MMBtu/hr. Therefore, the District will retain the original firing rate of 775 MMBtu/hr.
70.	Boiler #5 underwent a maintenance turnaround in 1996 wherein the generating tubes and the superheater tubes were replaced with identical equipment. In 2002, during the Coker/Boiler #5 turnaround, additional tubes were replaced, along with the covering or metal "skin" of the boiler. These were identical replacements to repair deteriorating tubes and the worn cover to return the boiler to its design integrity. These do not constitute a modification and there were no associated increases in emissions. According to Tesoro, if the tubes were not replaced with identical components, then the boiler design would be affected and boiler damage could result.
71.	The mistake has been corrected in the permit.
72.	Monitoring requirements have been added to the condition. The monitoring is consistent with Tesoro's current practices to show compliance with the emission limits in the conditions. Monitoring and testing have been added to the tables in Section VII.
73.	Monitoring and source testing have been included in Tables VII-V, W, and AB.
74.	Monitoring and source testing have been included in Tables VII-V, W, and AB.
75.	Source testing requirements have been included.
76.	The contribution that VOC emissions from these engines make to the VOC cap is trivial, and does not justify the imposition of a monitoring requirement. No change has been made to the permit.
77.	The comment did not identify any regulatory purpose for adding rich- vs. lean-burn to the engine description. The comment did not identify any applicable requirement for which additional NOx monitoring might be required. No change has been made to the permit.
78.	Federally enforceable periodic source testing for 9-10-303 is required by Condition #18372 Part 33 and has been replaced in Table VII – Y and Table VII – AA.
79.	The District disagrees with the assertion that applicability of Subpart CC is in question. The District's calculations are soundly based. Regarding the BAAQMD Regulation 6 grain loading standard, the margin of non-applicability is more than a factor of 20, in the worst case. The likelihood of a cooling tower having a drift rate 20 or more times the rate used to derive the conservative AP-42 factors is so small as to be negligible. Applicability of the MACT is based on actual, not potential, emissions. It follows that applicability of the standard must be based on more than a mere doubt concerning data reliability. Applicability must be based on at least a high likelihood that actual emissions are above the threshold. Such a conclusion is not supported here. Regarding Regulation 8-2 (which is an applicable requirement), the margin of compliance is a factor of 30. This, combined with the small likelihood of substantial drift, is ample justification for concluding that addition of further monitoring is not required. Title V monitoring pertains only to applicable requirements, and so imposition of monitoring to determine applicability is not federally required. Monitoring for applicability of Subpart CC at these cooling towers would be particularly inappropriate given the difference between emissions and applicability thresholds.
80.	Source test data has been collected but needs to be reviewed by the District Source Test Section and analyzed by the District Engineering Section. A POC limit has been set based

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	on the source test data.
81.	The requirement has been added to Table VII – Ta.
82.	The monitoring has been added to Section VII.
83.	The correct emissions caps will be determined in Revision 2. A thorough study of the sources is required to determine the correct emissions caps. The District will review the history and both caps apply for now. This is sufficient from a Title V standpoint, because the permit includes the currently applicable requirements. If caps are adjusted and the applicable requirement accordingly changes, then the Title V permit will be updated to reflect this.
84.	The District does not agree that the condition creates a reasonable expectation that the APCO has the authority to change the permit in a manner not consistent with federal PSD. The District finds no ambiguity on this point in the language of the permit condition. In any case, from a Title V standpoint, this applicable requirement has been accurately incorporated into the permit, and so no Title V issue is presented. No change has been made to the permit.
85.	<p>The changes to the proposed initial permit suggested by EPA in its 9/26/03 letter were not made because they were not the best way to address EPA’s concerns. Those concerns were addressed by adding the emission calculation procedures for determining cap compliance to the permit. These procedures are contained in Table C of the Appendix. All of the issues raised in Comment 85 are already addressed in Table C. EPA staff has, at various points in discussions over these refinery permits, misinterpreted certain statements by District as “promises” or “commitments” to follow through with specific actions. Though the District considers staff-level discussion with EPA to be extremely useful and productive, it reserves its ability to reconsider issues raised in those discussions, and has limited its commitments to those made in writing by appropriate District officials.</p> <p>Old comment 29: The District does not have the authority to unilaterally require the facility to use CEMS data if the facility chooses to submit other valid data. Table C in the appendix to the permit provides the calculation procedure for determining compliance with the cap.</p> <p>Old comment 31: Table C in the appendix to the permit provides the calculation procedure for determining compliance with the cap.</p> <p>Old comment 33-37: The District does not have the authority to unilaterally require the facility to use CEMS data if the facility chooses to submit other valid data.</p> <p>Old comment 39: The compliance method for PM and VOC is included in the Appendix for the cap.</p>
86.	The District disagrees with EPA’s recommendation that emission rates for partially controlled emissions should be accomplished by a permit revision. The current condition recognizes that the operator may make quantifiable and verifiable reductions in emissions, and allows for those reductions to be used in determining compliance with the cap. The District is open to further discussion regarding whether the compliance verification methodology is appropriate for a permit issued pursuant to a SIP-approved program. Such a discussion would be concerning whether changes to an applicable requirement are appropriate. However, from the Title V perspective, this applicable requirement has been accurately incorporated and monitoring is provided. Therefore, the District believes that no Title V issue is presented.
87.	The requirements were added to the Table IV-DA.
88.	The District agrees with this comment. 40 CFR 61.340 through 61.357(f) will be added to the appropriate source-specific tables in Revision 2. A more thorough review is required to add the appropriate applicable requirements and monitoring. The inclusion of 40 CFR 61.343 through 61.357 (f) in Table IV – A for the Facility is appropriate for this revision.
89.	Monitoring and recordkeeping have been added.
90.	Continuous temperature monitoring has been specified.
91.	The facility may use either. In the absence of a requirement to do so, the facility need not specify in advance the method used to demonstrate compliance. Because the facility may choose either method at any time, both methods must be included as applicable requirements in the alternative.
92.	This situation is not appropriately described as an “alternate operating scenario.” The

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	source's operation is not changing in any way. Please see the response to Comment 91.
93.	The sources are abated at all times by Furnace S950 (Condition #7410, part 1, page 414 of the draft permit). No change has been made to the permit.
94.	The change has been made to the permit.
95.	The change has been made to the permit.
96.	The change has been made to the permit.
97.	The change has been made to the permit.
98.	Monitoring for leaks is already required.
99.	Tesoro was unable to provide documentation to show that the firing rate of No. 6 Boiler was designed to be 848 MMBtu/hr. Therefore, the District will retain the original firing rate of 775 MMBtu/hr.
100.	The additional detail has been added.
101.	Monthly opacity checks are already required and annual source tests for PM emissions have been added.
102.	Monitoring has been added for S802.
103.	Tesoro has agreed to complete the source testing by the end of the year (12/1/2004).
104.	Annual source testing is required to demonstrate compliance with Regulation 9-1-313.2. In addition Condition #21053 Part 5 requires monitoring of fuel gas H2S using a continuous online analyzer to demonstrate compliance with 9-1-313.2. All sulfur compounds in the fuel gas are assumed to be converted to SO2. The continuous SO2 CEM indicates compliance between the annual source tests.
105.	See response to comment 104.
106.	The change has been made to the permit.
107.	The change has been made to the permit.
108.	The citation has been removed for external floating roof tanks.
109.	The change has been made to the permit.
110.	The change has been made to the permit.
111.	The change has been made to the permit.
112.	The comment merits consideration as a future revision to the permit. However, the District believes the proposed permit conditions are appropriate at least for the time being. The District will consider incorporating the suggestion at a later date.
113.	The District agrees with this comment.
114.	The changes have been made to the permit.
115.	The changes have been made to the permit.
116.	The District agrees with this comment.
117.	The changes have been made to the permit.
118.	A thorough review will be required to determine if the facility has slop oil vessels and sludge dewatering. In the absence of information supporting a finding of applicability, requirements will not be incorporated into the permit. Compliance with the requirements for slop oil vessels and sludge dewatering, to the extent they apply, will be addressed in Revision 2.
119.	The change has been made to the permit.
120.	The District agrees with this comment. Though the requirements are now applicable, inclusion in the unit-specific tables will facilitate compliance review. 40 CFR 61.340 through 61.357 (f) will be added to the appropriate source-specific tables in Revision 2.
121.	The citation has been added to Table IV-A.
122.	These requirements apply to the facility as a whole, not to individual process units. The District feels that citing the requirements in the facility table is appropriate. However, where specific requirements are applicable to a small, identifiable group of sources, they should be included in the individual source tables. The permit will be revised consistent with this principle, to the extent such situations are identified.
123.	40 CFR 63.654(a) does not contain any applicable requirements. All it does is point to other sections actually containing applicable requirements. These sections are cited in the permit. No change has been made.
124.	A more thorough review is required to determine if CAM is required. Without further analysis, a finding that CAM applies is not supported. The District will consider

Response to EPA comments (4/14/04)

	incorporating the suggestions in Revision 2.
125.	See response to Comment Numbers 88 and 120.
126.	The mistake has been corrected in the final permit. Appendix G of the SOB was amended by the District. However, a previous version was mistakenly posted on the District's web site. Amended Appendix G will be included in the final permit and clarifies the status of the permits for all of the cooling towers.
127.	The mistake has been corrected in the final permit.
128.	The mistake has been corrected in the final permit.
129.	The District disagrees with the comment. See response 79, above. Justification for relying on the calculations, and for determining that monitoring is not required.
130.	See response 79 above.
131.	See response 79 above.
132.	See response 79 above.
133.	No change has been made to the permit. To the extent the comment is asserting a Title V deficiency, the District disagrees. The Title V permit accurately incorporates this applicable requirement. To the extent the comment recommends a change to the applicable requirement, the District is willing continue discussion with EPA on this issue and to consider whether a revision to the requirement is appropriate, with the understanding that the Title V permit will be revised to reflect any resulting revisions to the requirement. Note also that the District has not made commitments to EPA other than those that have been conveyed in writing.
134.	See response 133 above.
135.	See response 133 above.
136.	See response 133 above.
137.	See response 133 above.
138.	See response 133 above.
139.	See response 133 above.
140.	See response 133 above.
141.	No change has been made to the permit. Table VII.C.2.1 already contains the numeric emission limits, requirements, and compliance monitoring required by NSPS Subpart J.
142.	The change has been made to the permit, based on the argument made in the comment.
143.	No change has been made to the permit. The time weighting of the source test results was not introduced as part of the 12/1/03 version of the Title V permit. This permit condition has been in place since 1997 and was evaluated and approved under Application No. 18188. The Title V permit accurately incorporates this applicable requirement.
144.	No change has been made to the permit. The District will review the issues raised by the comment, and will take appropriate actions at a later date.
145.	<p>Permit conditions are not automatically federally enforceable simply because they are contained in permits issued pursuant to a federally-approved NSR permit program. The District imposes permit conditions to enforce both federal and state-only requirements. Each of the permit conditions mentioned in the comment was imposed to address non-federal applicable requirements, and each is therefore correctly labeled non-federally-enforceable. The comment does not assert that these particular permit conditions implement federal requirements.</p> <p>Condition 4233 was imposed to reflect the applicant's description of the unit capacity. The application triggered neither BACT nor offsets. The condition did not protect federal NSR or BACT requirements in effect at the time.</p> <p>Condition 12580 assures compliance with the District's toxics risk management policy, a state-only requirement, and is therefore not federally enforceable.</p> <p>Condition 18137 assures compliance with District Regulation 2-1-234.3, which is not in the SIP and is therefore a state-only requirement and is not federally enforceable.</p>
146.	The change has been made to the permit, based on the argument made in the comment.
147.	The change has been made to the permit.
148.	No change has been made to the permit since the citation to "cumulative increase" does not mean an NSR action related to offsets.

Response to EPA comments (4/14/04)

149.	The change has been made to the permit, based on the argument made in the comment.
150.	The change has been made to the permit.
151.	The change has been made to the permit.
152.	The change has been made to the permit.
153.	The change has been made to the permit.
154.	The changes have been made to the permit.
155.	The change has been made to the permit.
156.	The change has been made to the permit.
157.	The comment contained a typo. It should have referred to 8-18-301, not 304. Section 8-18-301 is a general limit on equipment leaks. This requirement is structured in a way that gives the facility an incentive to inspect on a frequent basis, because no violation is deemed to have occurred if a leak is detected by the facility, minimized within 24 hours and repaired within 7 days. In this sense, monitoring is provided in the requirement itself. The scenario that typically gives rise to a violation is discovery of a leak by a District inspector, but that scenario cannot be prescribed in the permit as periodic monitoring.
158.	No change has been made to the permit. Table IV contains sufficient detail to understand the requirements that apply and are incorporated by reference.
159.	The permit has been changed to add appropriate monitoring to Table VII.H.2.1 from Subpart QQQ.
160.	The federal standard as written allows the facility to use either compliance alternative. In the absence of a requirement to do so, the facility need not specify in advance the method used to demonstrate compliance. Because the facility may choose either method at any time, both methods are included as applicable requirements in the alternative. This situation is not appropriately described as an "alternate operating scenario," because the source's operation is not changing in any way. A new standard condition-I.J.1- requiring records and reporting of the compliance options used has been added to Section I, Standard Conditions, of the permits. The control devices are identified in Table II-B.
161.	The changes have been made to the permit, based on the argument made in the comments.
162.	The changes have been made to the permit, based on the argument made in the comments. Flow rate monitoring has not been added because residence time is already inherent in the design of the thermal oxidizer.
163.	No change has been made to the permit. Applicable requirements of 61.343 through 61.347 are listed for each wastewater cluster.
164.	No change has been made to the permit. The facility has a portion of the drains that are subject to QQQ based on the construction or modification date, and those drains that are subject to QQQ are included in Cluster 20q – Table IV.G.1.3. The facility also has some sources that are not subject to QQQ based on the age of the units, and the fact that there has not been any construction or modification to the drain system in those sources that would have triggered the QQQ requirements. In summary, the QQQ requirements have never been triggered for the facility as a whole, but have been triggered in some instances for individual plant sources. Thus, two separate tables were created in the Title V permit, one that lists the applicable requirements for drain systems subject to QQQ, and one that lists the applicable requirements for drain systems not subject to QQQ. Cluster 20d is the table for drain systems not subject to QQQ.
165.	No change has been made to the permit. The Section 8-8-112 exemption is not currently being applied to the sources included in the wastewater tables. Rather, it is included to provide flexibility to the facility if it is able to meet this exemption. Furthermore, a standard condition is being added to the permit that requires record keeping to demonstrate which compliance option is being used.
166.	No change has been made to the permit. Chevron claims these sources are exempt from 8-8 under sections 112 and 114. QQQ affects oil/H <sub>2</sub> O separators including storage tanks/vessels installed/modified/reconstructed after 5/4/87. The oil/H <sub>2</sub> O separators have not been modified or reconstructed since 5/4/87. The wastewater storage tanks are subject to Subpart K and exempt from QQQ per 40 CFR 60.692-3(d).
167.	No change has been made to the permit. Sludge dewatering does not occur at this facility.

Response to EPA comments (4/14/04)

168.	The District's understanding is that Chevron has always considered the wastewater system to be subject to Group 1 standards. This is due to the fact that they are subject to the Benzene Waste Operations NESHAP (BWON); 40 CFR 61 FF, and the Refinery MACT says if the facility has Group 1 wastewater streams that the compliance plan is the Subpart FF BWON requirements. The Richmond Refinery complies with Subpart FF BWON requirements.
169.	The facility complies with Subpart FF BWON, which is what the Refinery MACT regulation standards refer to for Group 1 systems. The compliance option 61.342(e) allows the facility flexibility to meet the 6 BQ limit, and therefore part of the process drain system is not required to be fully controlled as long as the uncontrolled wastestream benzene amount is less than 6 Mg. Thus, some of the Richmond Refinery process drains are not controlled, and the drain cluster states that they are exempt from controls.
170.	All compliance alternatives are included to allow the full use of the regulation should there ever be reason to. However, if this is being narrowed now to only include the specific citations that the facility is currently subject to, the facility is able to clarify the compliance options. This facility is greater than 10 Mg/yr in total annual benzene quantity (TAB). The facility utilizes compliance option 61.342(e).
171.	No change has been made to the permit. A3200 is the firebox of a process heater (F-1100B).
172.	No change has been made to the permit. S3200 is the source number for the entire DEBRU plant. Within the plant, there are three sources S3110, S3111, and S3192 that are directly abated by A3200. It is not correct to say that S3200 is abated by A3200, rather it is more accurate to state that the three individual sources listed above are abated by A3200.
173.	The change has been made to the permit based on the argument made in the comment.
174.	No change has been made to the permit. The facility complies with the applicable sections of 40 CFR 61 for the compliance option 61.342(e). Furthermore, for the affected WMUs, closed vent and control devices, treatment systems etc., the facility complies with the monitoring, recordkeeping, and reporting requirements of those specific applicable standards. Therefore, the facility complies with the 63.647(c) citation, and there should be no issue with adding this citation. The citation is already included in the permit.
175.	Condition 19177, Part 22a indicates the SO <sub>2</sub> emissions are based on TRS measurement, which means all sulfur compounds, including H <sub>2</sub> S, are converted 100% to SO <sub>2</sub> . Further clarification of 100% H <sub>2</sub> S conversion does not appear to be necessary.
176.	The District disagrees with EPA's suggestion. While we agree that emissions of particulates and SO <sub>x</sub> are related to the amount of sulfur in the fuel, it does not follow that testing at maximum H <sub>2</sub> S content is needed to assure compliance. In fact, the direct relationship of emissions to fuel sulfur content makes extrapolation from as-found sulfur levels to maximum allowable sulfur levels a simple task. If the as-found source test indicates that compliance at higher fuel sulfur levels may be problematic, the District has the authority to require or conduct a source test as needed.
177.	Some furnaces have never been modified since the District began issuing permits. Heat input restrictions for those units have been imposed pursuant to a state-only requirement, BAAQMD 2-1-234. All other furnaces that have been modified or built since 1979 are subject to throughput limits imposed either explicitly or implicitly during permit review. These throughput limits are federally enforceable, because they were imposed to implement permitting rules contained in the SIP.
178.	The MACT2 requirements of correlating COM to particulate and grain loading emissions, or monitoring parameters such as voltage or current, will be addressed in Revision 2 of the permit after Valero complies with the MACT2 notification application requirement later this year per Condition 20620.
179.	No changes have been made. The suggested source testing is already occurring. S5 and S6 have annual source tests for 6-310 and 6-311 compliance. S5 and S6 provide fuel to S3 and S4, so the source tests imposed on S5 and S6 will provide monitoring for S3 and S4. These source tests are performed on the main stack emission point downstream of S3 and S4 and the ESPs.
180.	Some changes have been made. According to the SIP version of Regulation 1 on the

Response to EPA comments (4/14/04)

	EPA website as of 5/12/04, SIP 1-522.7 is different than the BAAQMD 1-522.7. 1-602 and 1-604 are not in the SIP version of Regulation 1. Table IV-A4 is correct as is. 6-305 will be added to the permit for S5 and S6. It was previously omitted because S5 and S6 emissions are actually feed to S3 and S4 as CO fuel.
181.	No changes have been made. Many of the Table IX-B24 Permit Shields were deleted in the final 1Dec03 permit because the streamlined requirements were less stringent. Of the three remaining, the two subject to this comment are actually non-applicable requirements (rather than subsumed) because 40 CFR 63.640(p) states that if equipment leaks are also subject to Part 60 (NSPS) and Part 61 (NESHAPS), then they are only required to comply with Part 63 (MACT). The 10-52 and 10-59 items in Table IXB-24 were deleted and a new Table IX A-5 was added to show this in detail.
182.	The requested cross-referencing will be considered at a later time.
183.	Changes made to Tables IX-A2, A3 & A4.
184.	All permit shields are unnecessary, by definition. They document the permitting agency's determination that a plausibly applicable requirement does not, in fact, apply. They are incorporated at the request of the applicant if supported factually and legally. The District knows of no legal reason why a shield from certain requirements of Part 70 is inappropriate.
185.	Changes were not made. Citing BAAQMD 9-1-301 as federally enforceable in Table IV-Refinery Generally Applicable Requirements which require routine monitoring clarifies that SIP 9-1-301 is applicable. 9-1-502 is not applicable since the Claus units do not emit more than the 100 lb/day limit of 9-1-307.
186.	The change was not made. S1 and S2 are not sulfuric acid plants that are subject to 9-1-309, Emission Limitations for Sulfuric Acid Plants. S1 and S2 don't make sulfuric acid.
187.	The change was not made. EPA is correct, Regulation 9-1-606 does specify Method 32, but this is a typographic error. Method 32 is Determination of Hydrogen Sulfide in Process Water Streams. Method 25 is the correct procedure for gas streams.
188.	The changes were made. The requirement to operate and maintain the best available H2S monitor on the Sulfur Plant Tail Gas effluent is in Conditions 125 and 126, Part 2.
189.	No change was made. 40 CFR 61.357(d)(5) is already included in Table VII – Refinery Applicable Limits and Compliance Monitoring Requirements Refinery-Wide Applicability, starting on the 5 <sup>th</sup> row.
190.	A Sewer Pipeline and Process Drains applicability determination has been included in the SOB. The Subpart CC wastewater provisions reference Subpart FF, with which Valero complies through 61.342(e)(2)(i). The 61.356(b) recordkeeping requirements are shown in Table IV-Refinery Generally Applicable Requirements that require routine monitoring. Subpart QQQ does not apply since the facilities were built prior to May 4, 1987. Two process unit storm water sewer systems were added after May 4, 1987, but these are exempt from Subpart QQQ per 60.692-1(d)(1).
191.	Change made as requested. Subpart FF 61.356(b)(4) was added.
192.	A Sewer Pipeline and Process Drains applicability determination has been included in the SOB. The Subpart CC wastewater provisions reference Subpart FF, which Valero complies through 61.342(e)(2)(i). The 61.356(b) recordkeeping requirements are shown in Table IV-Refinery Generally Applicable Requirements, which require routine monitoring. Subpart QQQ does not apply since the facilities were built prior to May 4, 1987. Two process unit storm water sewer systems were added after May 4, 1987, but these are exempt from Subpart QQQ per 60.692-1(d)(1).
193.	Changes were not made. 349(a)(1)(ii)(B) locked closed vents and 61.354(f)(1) monitoring are already in the permit. See Table VII-J38 for an example. 349(a)(1)(ii)(A) is not because the flow meters are not the selected compliance option.
194.	No changes were made. EPA is correct – the original response is incorrect. Condition 19466, Part 2a and 2b required source tests on S188 and S189 to confirm destruction efficiency of A13/A26. However, these are vapor recovery compressors that collect the vapors and discharge them into the fuel gas system for combustion in the various process heaters and/or furnaces. During upset conditions or emergency malfunctions, the gases could be flared. All of these outcomes result in the combustion of the gases in devices that are commonly accepted to have destruction efficiencies well over 70%. Therefore,

Response to EPA comments (4/14/04)

	monitoring is not imposed on this source.
195.	The comments regarding Conoco-Phillips and Shell repeat the comments contained in the letter dated October 31, 2003. The District will respond to those comments separately.

Response to EPA comments (4/14/04)

Attachment B

October 31, 2003

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

**RE: EPA Review of Proposed Refinery Title V/ Major Facility Review Permits:  
Conoco-Phillips Company (Rodeo) source # A0016, and  
Shell Martinez Refinery (Martinez) source # A0011**

Dear Mr. Hill:

Thank you for the opportunity to comment on two proposed Bay Area Air Quality Management District ("BAAQMD" or "District") Title V Major Facility Review permits ("Title V permits"). We are submitting these comments now because we did not have enough time to review these two permits during the short EPA 45-day review period that ended on September 26, 2003 for all five proposed District refinery permits. We understand that the District will revise each proposed refinery permit as necessary to respond to the General Comments in our September 26, 2003 letter on the other three proposed refinery permits and we did not repeat those comments in today's letter.

We appreciate the District's willingness to review these comments prior to issuing the initial Title V permits for Conoco-Phillips and Shell Martinez. We recommend that the District include as many of the changes we are requesting as possible in the initial Title V permits, and make the rest of the recommended changes as soon as possible. As you know, EPA retains the authority to reopen any Title V permit if necessary to assure compliance with all applicable requirements and the requirements of 40 CFR part 70.

We appreciate the District's cooperation during this process. We understand that the District intends to proposed additional refinery Title V permit revisions in the near future, and we will continue to work cooperatively with the District during these revisions. If you have any questions concerning our comments, please contact me at (415) 972-3974, or contact Ed Pike of my staff at (415) 972-3970.

Sincerely,

*Original signed by*

Gerardo C. Rios  
Chief, Air Permits Office

Response to EPA comments (4/14/04)

Adams, Broadwell, Joseph & Cardozo - Daniel Cardozo, et. al.  
California Air Resources Board - Mike Tollstrup  
Communities for a Better Environment - Will Rostov  
Conoco-Phillips Company - Willie W. C. Chiang  
Golden Gate University - Marcie Keever, et al  
Shell Martinez Refinery - Aamir Farid



**Enclosure A**  
**EPA Comments on Conoco Phillips Refinery Permit**

**STATUS OF EPA REVIEW**

EPA is providing comments now based on our limited review of the proposed permit so that the District will have time to review our comments prior to issuing the initial Title V permit. We will inform you if we have any additional comments in the future.

Our September 26, 2003 letter contains several general issues that are potentially applicable to all five proposed refinery permits including this proposed permit. Please note that today's comments are not intended to replace or repeat those comments.

**ABATEMENT DEVICES**

**Monitoring**

1. For abatement devices A-20 and A-21, the limits for differential pressure are specified as the "normal range"(Table IIB, page 19). Because the permit does not state what the "normal range" for the differential pressure is, these limits do not establish clear requirements for the source. EPA strongly recommends that these generic limits be replaced by the specific numerical values that constitute the allowable range of differential pressures. 1
  
2. The only monitoring included in the permit for sources 380 and 389 is measurement of the differential pressure across the sources' abatement devices. EPA recommends adding additional requirements for visual inspections on an event basis whenever visible emissions are seen exiting the silos. 2

**COMBUSTION UNITS**

**Applicable Requirements**

1. The note regarding Condition 1694 says that the original version of Part 5 of the condition was deleted because fuel oil is not burned at the facility and the condition is not needed. According to Condition A.2b, however, sources 3 and 7 are permitted to use liquid fuel. Unless the facility is prohibited from firing fuel oil, the original fuel oil conditions and the necessary monitoring requirements should remain in the permit. 3
  
2. According to Part B1 of Condition 476, the charging rate for source 300 has a daily limit of 56,000 barrels and an annualized daily limit of 52,000 barrels. Only the 56,000 barrel limit is listed in Table IIA on page 10 of the permit. This table should be revised to also include the annualized daily limit. 4

**Enclosure A**  
**EPA Comments on Conoco Phillips Refinery Permit**

3. BAAQMD Regulation 9-3-303 was potentially omitted from the permit for sources 8 and 14. The District should review the applicability of this requirement for these units and revise the permit as appropriate. 5
  
4. Condition #1694, Part A.2b requires that sources 3 and 7 be monitored for visible emissions during tube cleaning (page 255). This applicable requirement was not included in Tables VII - A.2 and VII - A.5 and should be added. 6
  
5. Condition # 1694, Part A.2c requires that sources 3 and 7 be monitored for visible emissions before each 1 million gallons of liquid fuel is combusted at each source. The condition also requires a Method 9 evaluation if visible emissions are present. These requirements were not included in Tables VII - A.2 and VII - A.5 and should be added. 7

**Federal Enforceability**

Throughput Limits established in permit condition 1694:

In this permit, the District has proposed to change the designation for fuel limits that apply to most combustion sources from federally enforceable to not federally enforceable (for example, see Condition 1694 in Table IV - A.2 for source S-3; similar conditions exist for sources S-4 up to S-31 and all of the combustion units other than gas turbines and duct burners). The throughput limits in condition 1694 were established in a prior permitting action, although the permit and the Statement of Basis do not appear to discuss the type of permit nor the reason for marking them non-federally enforceable. Limits created through prior NSR permits are federally enforceable Title V permit requirements. Please see the enclosed March 31, 1999 letter from John Seitz, Director of EPA's Office of Air Quality Planning and Standards, to Doug Allard, CAPCOA President. 8

In addition, the throughput for S-10 in condition 1694 was increased from 184 to 223 mmbtu/hr without an explanation. The District should retain the 184 mmbtu/hr limit or justify the change. 9

**Monitoring**

The BAAQMD Continuous Emission Monitoring Policy and Procedures manual is designated as non-federally enforceable throughout the permit (for example, see Table IV - A.6 for source S-8 on page 43). This manual was approved into the SIP on 05/03/1984 and is therefore a federally enforceable requirement. The District should revise the permit accordingly. 10

**COOLING TOWERS**

**Applicable Requirements**

**Enclosure A**  
**EPA Comments on Conoco Phillips Refinery Permit**

It appears that the cooling towers and all of their applicable requirements were omitted from the draft permit (except for BAAQMD Regulation 11, Rule 10 on page 24). The cooling towers listed in the cooling tower calculations (and any additional towers not included in the calculations) should be incorporated into the permit.

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**Miscellaneous**

Several sources are included in the cooling tower calculations but are listed in the permit as units other than cooling towers. For each of the following, the District should revise the permit and/or the calculations to reflect the true nature of the sources:

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- a. Source 110 - listed in the permit as tank 155 (see permit pages 9, 196, 197, 198 for example).
- b. Source 228 - listed in the permit as tank 750. In addition, the statement of basis notes that this unit has been removed from service. If this is the case, the permit should be updated to reflect the change.
- c. Source 230 - listed in the permit as tank 752. In addition, the statement of basis notes that this unit has been removed from service. If this is the case, the permit should be updated to reflect the change.
- d. Source 236 - listed in the permit as tank 770 (see permit pages 22, 246, and 408).
- e. Source 238 - listed in the permit as Used Caustic Tank T-211 (see permit pages 9, 164, 294, and 374).
- f. Source 240 - listed in the permit as tank 774. In addition, the Statement Of Basis notes that this unit has been removed from service. If this is the case, the permit should be updated to reflect the change.

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**FUGITIVE SOURCES (PRESSURE RELIEF VALVES, PUMPS, COMPRESSORS)**

**Applicable Requirements**

- 1. Table IV - AA indicates that 40 CFR 61 Subpart V is neither applicable on a refinery-wide basis nor to any of the sources that are individually listed and it is unclear in the permit why. The standard would apply to any piece of equipment that contains or contacts a fluid (liquid or gas) that is at least 10 percent by weight a volatile hazardous air pollutant (VHAP), such as benzene, unless the facility has demonstrated that the standard doesn't apply under 61.285(d). The District should re-evaluate the applicability of this subpart with respect to the fugitive emission sources at the refinery and include all appropriate applicable requirements. If the refinery or any sources are not subject to the subpart, a justification should be provided in the statement of basis.

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**Enclosure A**  
**EPA Comments on Conoco Phillips Refinery Permit**

2. Table IV-AB shows that NSPS Subpart QQQ is applicable to source 1007 (page 145). As a result this source should also be added to table IV-AA. 19
  
3. According to Table IV-B5, source 388 is subject to Part 3 of Condition 1860, which requires that the source be included in the fugitive emission monitoring program required by Regulation 8-18. This source and condition are not included in Table IV-AA and should be added. 20
  
4. Table IV-AA indicates that source 324 is subject to the requirements of 40 CFR 60 Subpart QQQ (page 142). This source should be specifically listed in Table IV-AB as a unit that is subject to Subpart QQQ along with source 1007 on page 145. 21
  
5. Table IV-AB is missing applicable requirements from 40 CFR 60 Subpart VV. The following should be added to the permit: 22
  - 60.482-2(c) - Pump leak repair period
  - 60.482-7(d) - Valve leak repair period
  
6. Table IV-AB is missing an applicable requirements from 40 CFR 63 Subpart CC. The following should be added to the permit: 23
  - 63.648(d) - New sources

**Federal Enforceability**

The 11/27/02 amendment to BAAQMD Regulation 8-18 has been approved in the SIP. Therefore, requirements 8-18-405 and 8-18-406 should be denoted as federally enforceable in Table IV-AB on page 143 of the permit. Upon doing so, the District should also delete the redundant requirements for SIP Regulation 8-18 from the same page. 24

**Monitoring**

We understand that the District will require the refineries to demonstrate compliance with SIP Regulation 8-10 by monitoring the pressure of all of the pressure vessels. 25

**Miscellaneous**

The adoption date for SIP 8-28 was misprinted in Table IV-AB on page 144. The date should be changed from 12/9/94 to 6/01/94. 26

**HYDROGEN PLANT**

**Monitoring**

Pursuant to BAAQMD Condition 6671 and Regulation 8-2-301, source 307 has a vent scrubber (A-50) to meet a 15 lb/day POC limit from emission streams with more than 300 ppm total carbon. EPA agrees that the rule limits are necessary for hydrogen plants at each of the refineries because hydrogen plant vents (presumably CO2 vents) can emit over 15 lbs/day. We also believe that parameter monitoring to ensure proper operation of the control 27

**Enclosure A**  
**EPA Comments on Conoco Phillips Refinery Permit**

device is necessary and that testing will be necessary if the facility is not well under its emission limits (see Table VII-N, which only requirements for visual inspection). We also believe that Reg 8-2 and monitoring requirements should apply to the CO2 vent at the hydrogen plant for each refinery.

**LOADING RACKS**

**Monitoring**

1. According to Table II B, the marine terminal thermal oxidizer must meet either of two limits:
  - 1) 2 pounds POC per 1,000 barrels loaded; or
  - 2) achieve a reduction of POC emissions of at least 95% by weight.

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To demonstrate compliance with the above limits, Table VII - S (page 347) requires continuous monitoring of the device's temperature. EPA recommends adding a requirement for an appropriate residence time (with a gas flow meter as a monitoring method for the flow rate) to help ensure that the oxidizer meets the required control efficiency.

**PERMIT SHIELDS**

**Applicable Requirements**

The proposed permit contains a "subsumed requirements" permit shield from the floating roof tank requirements based on a request from Unocal in 1987 for alternate NSPS QQQ conditions. We were not able to locate an EPA approval document in the limited amount of time available to review this permit. Please remove the shield or provide us with a copy of the EPA approval document or the date and name of person who approved it.

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**TANKS**

**Applicable Requirements**

For sources subject to NSPS Subpart Kb, the frequency specified for inspections of the secondary rim seal is not consistent with the regulations. The permits require inspections for holes or tears of the secondary rim seal at a frequency of once every ten years. However, pursuant to 60.113b(a)(2), the secondary seal should be inspected for holes, tears, or detachment on an annual basis. For example, see Table VII-B9 for source 448 in the permit.

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**Monitoring**

1. The frequency specified for multiple tank monitoring requirements in the permit is "not specified." In cases where the monitoring frequencies are not specified in the applicable requirements, the District should use its periodic monitoring authority to establish appropriate ones. Occurrences of the unspecified monitoring frequency were noted in tables VII - B11, VII - B12, VII - B15, and VII - B25. Also note that the unspecified frequency occurs in Table VII - Cluster 11 in the Tesoro permit and Table VII.F.1.7 in the Chevron permit.

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**Enclosure A**  
**EPA Comments on Conoco Phillips Refinery Permit**

2. For tanks that are exempt from Regulation 8-5 based on low vapor pressure, the District requires monitoring of the vapor pressure only when there is a change in the material that is stored (see monitoring requirements for source 118 in Table VII-B2 for example). In such cases, the District should establish what conditions or circumstances constitute a “material change.” For example, crude oil that comes from one location can have a different vapor pressure than oil that comes from a different source. Without a clear definition of a “material change,” the facilities may not consider such an event to be cause for a vapor pressure determination. In addition, for these sources, the District should require that the facilities maintain records of the tank contents. 32

**GENERAL COMMENTS (UNSPECIFIED UNITS AND STATEMENT OF BASIS)**

*Unspecified Units*

**Applicable Requirements**

1. Regulation 9-1-313.2 is marked non-federally enforceable in several instances throughout the permit. This regulation is in the SIP and should be denoted federally enforceable in the permit. 33

*Statement of Basis*

**Miscellaneous**

1. The statement of basis says that permits may be revised through a variance or an administrative change (page 12, electronic version). Please add to this discussion a clarification that any permit revisions made through a variance must go through the appropriate review process. 34
2. Section G of the statement of basis contains a brief summary of the changes made to the permit based on comments received by the District. The general response to comments document does not contain this type of summary, and we encourage the District to include this type of summary in the statement of basis or final response to comments for all five of the refinery permits. 35

**Enclosure B**  
**EPA Comments on Proposed Shell Martinez Refinery Permit**

**STATUS OF EPA REVIEW**

EPA is providing comments based on our limited review of the proposed permit so that the District will have time to review our comments prior to issuing the initial Title V permit. We will inform you if we have any additional comments in the future.

Please note that these comments are in addition to any relevant issues in our September 26, 2003 letter that may also apply to this refinery.

**ABATEMENT DEVICES (Table II B)**

**Monitoring**

1. As noted in our comments for the proposed Tesoro permit (EPA letter to BAAQMD, September 26, 2003, Enclosure B, p.1), it is currently unclear what monitoring is required to ensure that the abatement devices in Table IIB meet their emission limits because the table in the proposed permit does not contain this information. For abatement devices subject to monitoring (e.g., baghouse monitoring) all of the applicable requirements should be included in the table. In addition to making the monitoring requirements clearer, this revision will also make Shell's draft permit more consistent with the draft permits for the other refineries (see Table IIB in Chevron's draft permit). 36
  
2. There are several instances where a control device is subject to an abatement efficiency, but the District has not included any monitoring to determine compliance with that efficiency (see below). In many cases, the type of control device is not specified. For instance, tank 532 is controlled by A56, a vapor recovery system. Without knowing what type of vapor recovery system this device is, we cannot suggest appropriate monitoring. Please specify the control(s) in the permit and include monitoring methods for all limits, or justify why monitoring is not needed. 37
  - A. Abatement device A-33 is required to meet a 95% abatement efficiency (table IIB, page 28). Please specify the type of "vapor recovery system" and add a monitoring method to table VII to determine compliance. For instance, if the unit has a condenser or adsorber, then source testing and parameter monitoring would be appropriate. 38
  
  - B. Flares S-1470 (Table II B, p.31) and S-4201 (Table II B, p.38), and thermal oxidizers A-100 (Table II B, p.29) and A-4181 (Table II B, p.37) for the marine loading berths have destruction efficiency requirements of 98.5% and 95%, respectively. Please add monitoring methods to table VII for each of these units to determine 39

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compliance with these limits and evaluate in the statement of basis whether the controls in the proposed permit will assure compliance with the associated limit. For thermal oxidizers, we recommend temperature monitors, residence time monitors, and source tests.

- C. Tanks S532 on p.428; S13, S1114, S1115, and S4334 on p.438; S1469 on p.458; Tanks S2007, S2008, S5115, and S5116 on p. 491; and Tanks S4319, S4350, S4356 on p.517 have a 95% control requirement but no monitoring for compliance. Tanks S4319, S4350, and S4356 on p. 516 have a 90% control requirement but no monitoring for compliance. Please state the controls that will be used to meet this requirement and add appropriate monitoring to table VII:

40

S532: Control device A56 is a vapor recovery system. The citation to the control efficiency limit is NESHAP Subpart FF 63.649(a)(2)(ii). This appears to be an incorrect citation since this regulation has to do with equipment leaks and does not mention control efficiency for a vapor recovery system. Because this citation is incorrect, we cannot suggest monitoring appropriate to assure compliance with the governing regulation. Please correct the citation and add monitoring to table VII-L (p. 428).

41

S13, 1114, 1115: To verify compliance with 60.112b(a)(3)(ii), 95% control efficiency, the abatement devices controlling these sources must comply with 40 CFR, 60.113b(c). Please add citations to this regulation. In accordance with 60.113b(c)(ii), please include a description of the parameters that will be monitored (and a monitoring method) to ensure that the control device will be operated in conformance with its design.

42

S1469: See comment on S532 above on citation to 63.649(a)(2)(ii).

43

**Federal Enforceability**

Table IV-BO, S1598, page 208: Please add rules 8-7-301.8 through 8-7-301.12, and rules 8-7-302.6 through 8-7-302.13 to the SIP version of rules 8-7-301 and 8-7-302, as is done for the District version.

44

**Miscellaneous**

We recommend that the permit require the facility to use compressors to avoid routine releases to those flares (S4201, A-101, A-102, and A-103) designated as emergency-use only to ensure compliance with the exemption from the NSPS J fuel H<sub>2</sub>S limit. See related Tesoro comment (EPA letter to BAAQMD, September 26, 2003, Enclosure B, p.1).

45

**CATALYTIC CRACKING UNIT**

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**Applicable Requirements**

1. The permit should clarify that the NSPS PM limit increase is allowed only if the CCU exhaust is passed through an incinerator or boiler in which auxiliary fuel is combusted; the current conditions allow an increased limit with an unclear reference to “auxiliary fuel.” (p.451, table VII-G, S1426.) 46
  
2. For source 1426, table IV-AP includes several regulations for emission limits. Please spell out numerical limits for 9-1-310.1, sulfur dioxide limit; 60.102, standard for PM; 60.102(a)(1) and (a)(2); 60.102(b); 60.103, and 60.104(b)(2). All numerical limits should be spelled out in the permit. Where a numerical limit is included in one part of the permit, such as Section VI, but not another, it would be helpful to add cross-referencing. 47
  
3. Please include the following requirements for S-1426 or provide a justification in the statement of basis explaining why these requirements are not applicable:
  1. Reporting and recordkeeping requirements under 60.107 (opacity/PM)
  2. 6-305
  3. 6-401
  4. 60.104(b)(3) for units without add-on SO<sub>x</sub> controls
  5. 60.106(b)(3), calculation for coke burn-off rate
  6. 60.107 for CO requirements48

**Monitoring**

1. Please add periodic monitoring for proper ESP operation. Examples of monitoring approved by EPA in the past include (but are not necessarily limited to) parameter monitoring based on specified ranges for the voltage and current, periodic stack tests, and COMs. For additional discussion, please see the section on electrostatic precipitators on page 8 of this enclosure, and pages 2-3 of the Tesoro comments, submitted to the District on September 26, 2003. 49
  
2. We recommend stating that the records used to ensure compliance with the “daily profile” condition on p.454 for S1426 (table VII-G) will be based on the actual emissions monitored by CEMs where available (also p.471 table VII-AW for S1494, etc; p.481 for flexicoker S1759I; and throughout the permit). We understand that if current data shows that incorrect assumptions were made in originally determining the baseline emissions, or that incorrect emission factors were used for new equipment, then permit revisions outside the scope of this proposed Title V permit may be necessary. 50
  
3. For source 1426, table VII-AG (p.452) lists record-keeping as the monitoring for the SO<sub>2</sub> limit pursuant to 60.104(b)(2). NSPS J 60.106(i) outlines the appropriate 51

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monitoring to determine compliance with 60.104(b)(2). Please add this monitoring to the permit.

**COMBUSTION UNITS**

**Federal Enforceability**

For source 4161 table IV-CU (p. 251): Please include a federally-enforceable requirement to use the SCR at all times. (See permit condition 12271, part 31 from p. 372)

51a

*Start-up/Shut-downs* (condition 12271, p.369 and p.370)

1. The proposed permit contains start-up and shut-down exemptions that appear excessive for the gas turbines (p.370 section VI condition #12271). Condition 24b states that limits described as offset limits do not apply during days with start-ups or shut-downs, and condition 24c grants an exemption from BACT limits for start-up and shut-down periods that are allowed for up to 24 hours (see condition 22, which allows 24 hours for units with selective catalytic reduction). The proposed permit would not assure compliance with BACT and offset limits because the permit appears to allow the source to continuously avoid them if the refinery cycles the gas turbine on and off each day. We believe that these exemptions are inappropriate and would like to discuss with the District the origin of these exemptions and the best way to correct them. We will be happy to share with the District examples of appropriate start-up and shut-down conditions from other gas-turbine permits if you would find them helpful.

52

In addition, the proposed permit would exempt other combustion units from BACT for eight hours if they do not have SCR and 24 hours if they do have SCR (see also conditions 29, 30, 35, 36, 40, 41, 42) during start-ups and shut-downs. These exemptions also seem excessive unless there is a specific reason why a unit would need a long start-up or shut-down period without using emission controls.

53

1. In addition, conditions from the prior permit are phrased to apply to the entire permit (i.e. Title V permit), while they originally would apply only to permit condition #12271, which states the exemption. Also, the 72-hour exemption should be specifically limited to any individual unit that cannot comply with BACT under the special conditions listed on p.369. It could be interpreted to apply to all of the units, including boilers, heaters, and turbines fired on standard fuels.

54

***Combustion of Fuel Oil***

**Monitoring**

1. The permit allows combustion of fuel oil throughout Table II-A, beginning on p.9. However, p.369 prohibits fuel oil for units S4190-4193. Please change the provision on p.9 to state “low-sulfur diesel” for these units and all others subject

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to a similar restriction. Fuel oil includes fuels with greater emissions than low-sulfur diesel #2. (We would also find it helpful to list all the ratings rather than cross-referencing a condition with those ratings, or at least listing the page number where they are listed.)

2. For all boilers allowed to burn fuel oil (1507, 1509, 1512, 1514, 4190, 4191, 4192, and 4193) please see comment #1 under Tesoro's "Combustion Units/Monitoring" (EPA letter to BAAQMD, September 26, 2003, Enclosure B, p.2). 56
  
3. Source 1800, table VII-BL, p.484: Please add monitoring for rule 6-301 (Ringelmann #1), or explain in the Statement of Basis why no monitoring is needed. 57

***Fuel limits***

The District needs to either 1) change the condition to low-sulfur diesel for all units; or 2) perform a new periodic monitoring evaluation. The District is currently relying on a CAPCOA-CARB-EPA Region IX periodic monitoring agreement developed for sources firing low-sulfur diesel (condition #18618, #3&4 on p. 409), but the permit does not appear to prohibit combustion of fuel oil #6 or other grades of fuel oil. These other fuels typically result in significantly higher PM emissions than the low-sulfur diesel addressed in these agreements (see Air & Waste Management Association Air Pollution Manual pp. 247-8). 58

***CO Boilers***

**Applicable Requirements**

Please explain why Rules 6-304 and 60.104(a)(1) do not apply to the CO boilers. 59

**Monitoring**

1. The monitoring frequency for SOx fuel content is listed as one sample per million gallons (p.475 for CO boilers S1507, S1509, and S1512; p. 478 for S1514 utility boiler). We believe that the original sampling in the 2002 draft permit of once per batch is appropriate based on the CAPCOA/CARB/EPA Region IX guidelines (page 8) and should not be removed. Please note that this limit is also listed a second time on the table based on BAAQMD Condition #7618, Part E. 60
  
2. A sliding-scale test frequency (p. 410) is proposed for the SO3/H2SO4 limit on units S1431, 1432, 1765, 4180, and particulate limits on CO boilers S1507, 1509, 1512, with a frequency once every three years if the source passes the annual test at less than 50% of the limit. Please explain how the district would monitor parameters or otherwise verify that emissions did not increase during the three years without source testing. 61

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3. We understand that the CO boilers may burn up to 28,000 tpy DAF Float; 36,500 tpy Waste Biosolids; and 4,000 gallons per minute of primary treated wastewater (page 7 of CAL EPA DTSC Hazardous Waste Facility Permit dated 12-30-95; attached to Adams & Broadwell's September 2002 comments). Please include these materials in the periodic monitoring evaluation and require additional PM source testing if necessary to accurately quantify the different emission levels that may occur due to the different materials burned in the boilers.

62

**Miscellaneous**

Table II-A states that the CO boilers burn only gaseous fuels or oil. This is inconsistent with the DTSC permit referred to above.

63

**COOLING TOWERS**

**Applicable Requirements**

1. Source 4210 is subject to the source-specific applicable requirements on pages 158 (table IV-AS for sources 1457 and 1778) of the permit. This cooling tower should be added to the list of affected sources.
2. Rule 6-311 should be added to the list of source-specific applicable requirements for the cooling towers on page 158 (table IV-AS for sources 1457 and 1778) of the draft permit.

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**Miscellaneous**

The applicable limits and compliance monitoring requirements for source 4210 listed on pages 456 (table VII-AJ) and 512 (table VII CJ) could be consolidated into one table for clarity and conciseness.

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**EMISSION CAPS**

***CO Increases***

We would like to note that this permit avoids several concerns that we raised in our September 26, 2003 comment letter regarding the Chevron and Tesoro emission caps. For instance, this permit does not appear to contain problematic language regarding CO increases contained in the Chevron and Tesoro permits. This is consistent with EPA's recommended revisions for those permits and we recommend removing the language from the Chevron and Tesoro permits to be consistent with the proposed Shell permit.

***NOx CEMs for Cap Compliance and Compliance with other Limits***

We would like to note that the CEMs language on p362-3 (section VI condition #12271) requiring the use of CEMs installed at the source could serve as a good model for Chevron & Tesoro caps. Page 397-8 (section VI condition #18153) specifies extensive use of CEMs for NOx.

***NSR Applicability Baselines***

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We would also like to note that this permit does not appear to contain problematic language regarding NSR applicability baselines contained in the Chevron and Tesoro permits. This is consistent with EPA's recommended revisions for those permits, and we suggest using the proposed Shell permit as a model for making those revisions.

***Offset Generation***

Consistent with EPA's recommended revisions for the emission cap conditions for Chevron and Tesoro, the cap conditions in the proposed Shell permit clearly state that a source may not bank emissions just by lowering the cap (p. 326, condition 7c). Instead, the permit requires that the source meet the District's NSR rule before banking emissions. We suggest using the proposed Shell permit as a model for revising the other proposed refinery permits.

***Partial Emission Cap***

**Miscellaneous**

1. Please explain why fugitives are not included for emission caps, and whether fugitives from new sources are generally included in NSR applicability and offset calculations (p.360 section VI condition #12190; this comment also applies to other caps). 67
  
2. We would like to know whether the sanctions in Condition # 7618 B on p.323 are intended to be in addition to, or replace, other enforcement authorities. 68

***Variance Exemptions***

The proposed Shell permit allows the exclusion of any emissions for which a variance has been granted (p.361 section VI condition #12271). As discussed for the other Bay Area refinery permits, we understand that the District will delete these provisions or state that they do not affect federal enforceability of the cap. We believe this change is also necessary for the Shell Martinez permit. Variances may not be included in Title V permits as federally enforceable requirements, and are also prohibited from State Implementation Plans. For more information, see *Industrial Environmental Association v. Browner*, No. 97-71117 (9th Cir., May 26, 2000) and 62 FR 34641 (June 27, 1997). For instance see: FRN p80278 - middle col. 52.21 definitions 52.21(b)(48)(ii)(a & b). 69

**ELECTROSTATIC PRECIPITATORS**

**Monitoring**

As discussed in our comments for the Tesoro permit (EPA letter to BAAQMD, September 26, 2003, Enclosure B, p.2), the District must require periodic monitoring for the Shell ESP. For example, S-1426 ESP has no monitoring per Table II B. (See also our earlier comment on PM10 testing for the CO boiler emissions routed through the ESP.) 70

**FLARES**

**Applicable Requirements**

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1. Condition 18617, #12 (p. 411) implies that “intentional” releases to flares are allowed, in which case NSPS sub-part J applies to all units built after the date listed in the standard and a non-applicability permit shield for these flares cannot be included. 71
  
2. When reevaluating and documenting the determinations for NSPS J (as discussed in EPA’s letter to BAAQMD, September 26, 2003, Enclosure A, p.1), please also look at the applicability of NSPS J to thermal oxidizers. 72
  
3. Table VII-AO (p. 460) lists P/E record provision pursuant to NSPS J for S1471 and S1472 though there is no emergency only provision in the permit nor any citation to NSPS J for these units. Please explain if these units are subject to NSPS J; if they are subject please specify if they are subject to the fuel limit or exempt based on emergency/process upset use only and add continuous H2S monitoring. If these units are exempt please retain the record keeping provision and provide an explanation in the statement of basis. 73
  
4. In addressing the applicability of 40 CFR 60, Subpart A, please explain why these requirements, particularly 60.11, have been deleted from table IV-AXa for S-4201 and abatement devices 101, 102, and 103 (p164-165). Please ensure that all flares and thermal oxidizers subject to 60.11 have this requirement listed in the permit. We would recommend making 60.11 a refinery-wide requirement as was done for the other four Bay Area refinery permits recently submitted for review. 74
  
5. Similarly, when the District addresses applicability of 40 CFR 63, Subpart CC, please note that any flare subject to 63.643 must either comply with 63.11(b), or else meet the requirements of 63.643(a)(2), in which case refineries must be capable of measuring the control efficiency of the flare. Please ensure that each flare subject to 63.11 has this requirement listed in the permit. The District may want to consider making 63.11 a refinery-wide condition as was done in the permits for Chevron, Conoco, and Valero. 75
  
6. Table II B (p. 34) says that there are no applicable requirements for flares S-1771 and 1772. However, table IV-BW (p. 213) lists several requirements for these sources. Please correct this discrepancy. 76
  
7. Table IV-BXa lists condition 7618 as an applicable requirement for 1771. However, on page 322 (section VI, permit conditions, 7618) 1771 is not one of the subject sources. Instead, source 1772 is listed as subject, while table IV-BW (p.213) does not list 1772 as subject. Please correct the discrepancy. 77
  
8. We suggest listing Rule 12-11 as a requirement for all flares. It is currently just listed for S-4201, and A-101, 102, and 103 (Table IV-AXa, p.164). 78

**Monitoring**

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1. Table VII-AN on page 459 lists continuous monitoring & records as the H2S fuel monitoring requirement for S-1470 pursuant to NSPS J. Please specify continuous H2S analyzer as is done for 1771 and 1772 (table VII-BH, p.482) in the same permit. 79
  
2. In the PM source table (p. 58, electronic version, engineering evaluation) the District refers to note 1, explaining why flare S-4201 is not subject to monitoring for District regulation 6-301. However, table VII-AO (p. 459) does list a monitoring requirement for S-4201. Please clarify. 80

**FUGITIVE SOURCES (PRESSURE RELIEF VALVES, PUMPS, COMPRESSORS)**

We would recommend following the same format as used for the other four Bay Area Title V refinery permits, including an applicability matrix and a table of all applicable requirements and monitoring for all fugitive sources. 81

**Applicable Requirements**

1. Facility-Wide Conditions (p 303-307 table IV-DV): The permit lists some facility-wide conditions in table IV-DV, but there is no way to determine what units at the facility are subject to these requirements (including NESHAP Part 61 subparts M and FF and NESHAP subparts A and CC). Please state in the permit what process units are subject to these rules. 82
  
2. If the district retains the current format for fugitives, please make Rules 8-18 and 8-28 facility-wide requirements. Most units at the refinery would be expected to be subject to these requirements. However, these rules are not included in the permit for most units. 83
  
3. Pages 286-301: Please specify which units are subject to 40 CFR Part 60, Subpart GGG, VV, and QQQ; 40 CFR Part 61, Subpart FF; and 40 CFR Part 63, Subpart CC. 84

**Monitoring**

***Vessel Depressurization Rule***

We understand that the District will require monitoring of the pressure for all of the pressure vessels to determine compliance with SIP Reg 8-10. 85

**HYDROGEN PLANT**

**Applicable Requirements**

Hydrogen Plant #3 (unit 4160): We understand that the District's inventory estimates emissions from this unit alone at 600 tons per year. The Statement of Basis does not include any discussion of rules or emission limits that apply to this unit other than the general throughput limit discussion. Please add to the Statement of Basis a complete review of the limits that potentially apply and the specific limits that the unit must meet, including Reg 8-2 for the CO2 vent and any other emission points that are not limited by Reg 8 or 10, and whether a scrubber or other emission controls are required (a scrubber is required in the 86

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proposed Conoco-Phillips permit). Please note that Table AM appears to have no requirements.

Please also clarify why upsets but not routine releases from this unit are covered in the Condition # 12271 POC limit of 132.0 TPY.

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**MARINE LOADING BERTHS**

**Monitoring**

The permit lists a 95% control requirement (p.310 condition #4288) for marine loading (sources 2001, 2002, 2003, and 2004). Table VII-BR (p.490) has only P/E recordkeeping as the method to verify compliance. Please add an appropriate method for monitoring this limit.

88

**PERMIT SHIELDS**

*Non-applicability Shields (Tables IX A-3 and IX A-10)*

There are several significant problems with the proposed permit shields. One type of problematic shields included in the proposed permit is facility-wide shields<sup>1</sup>, which apply to the entire refinery and prospectively to an unknown universe of potential future new units. There are dozens of regulations listed in Table IX A-10 pertaining to benzene service, “SOCMI” units, hazardous waste incineration, and electric utility steam generators, among others. The permit does not contain any applicability determinations for these rules, nor any conditions to prevent the source from triggering these regulations.

89

Another facility-wide shield included in the proposed permit consists of a very large list of sources exempted from the boiler NSPS in Table IX A-3 without a specific reason. For example, table IX A-3 on p. 537 shields several units from 40 CFR, Subpart Db. The only explanation given is that “only S4191 and S4193 are subject to Subpart Db.” This is not adequate justification for a permit shield.

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<sup>1</sup> One example is that table IX A-10 on p. 540 gives a facility-wide shield from the requirements of 9-1-302, based on the facility meeting the requirements of 9-1-110. While table III (generally applicable requirements, p41) does list 9-1-110 as an applicable requirement, the sulfur limit referred to in rule 9-1-110 should be added to the “description of requirement” column.

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The statement of basis also does not appear to give any additional information or justification for any shields. We do not believe that 40 CFR, Subpart 70 allows either of these shields.

***NSPS J***

1. Please remove the proposed permit shield from NSPS Subpart J for the thermal oxidizers at the Claus unit (A-1501, A-1517, and A-1518). Because these thermal oxidizers are a part of the Claus sulfur recovery plant, they are subject to NSPS J (including 60.104(a)(2)) unless the Claus plant itself is exempt. In addition, the District proposed the shield because the thermal oxidizers combust only natural gas. Since they are control devices at a sulfur plant, however, it is reasonable to expect that these units will be combusting more than natural gas. 91
  
2. Table IX A-2, p. 537: The permit shield for several units has been deleted. However, the citation to 40 CFR 60, Subpart J, 60.105 in the shield still remains. We recommend deleting this out to avoid confusion. 92
  
3. Table IX A-12 (p. 542) contains proposed shields against NSPS subpart J for flares 1471, 1472, 4201, 101, 102, and 103 based on an emergency/malfunction use only exemption in the NSPS. However, the permit (see Table VII-AO p.459) references condition #20747, but does not actually limit the units to emergency/malfunction unit. Please add emergency/malfunction language to the limit column. In addition, only flares 4201, 101, 102, and 103 are covered by condition 20747 (p.414). Please add an emergency/malfunction limit for flares 1471 and 1472 or else remove them from the permit shield on p. 542 and add the NSPS limits to the permit. 93
  
4. Table IX A-13 (p. 543) shields flares 1771 and 1772 from NSPS J with the caveat that “Not applicable only when these flares combust only process upset gases or fuel gas that is released to the flare as a result of relief valve leakage or other emergency malfunction that is exempt from the standard...” This shield is confusing and unnecessary because the regulation itself exempts the flares from the fuel H2S limit during emergency/malfunction releases. Instead, any shield needs to be justified by *permit conditions* limiting the source to upset/malfunctions. 94

***Wastewater Treatment***

The proposed permit contains Table IX A-8, a permit shield from Reg 8 Rule 8 sections 301, 302, 306, and 308 based on the exemptions in Rule 8-8-114. However, there is no apparent reason why section 114 would exempt these operations, and it never authorizes any exemption from sections 306 nor 308. Therefore, the proposed permit shield is not allowed under 40 CFR part 70. The District may wish to discuss in the statement of basis for the initial Title V permit whether the Reg 8 Rule 8 section 113 exemption could apply to these units and consider whether a permit shield based on section 113 could be justified in a future permit revision. 95

***Process Drains***

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Table IX A-9, "Process Drains:" The Proposed Permit contains a permit shield for the process drains from Reg 8 Rule 8 based on a statement that no requirements exist. Rule 8-8 includes stormwater sewer systems, junction boxes, and sewer lines (sections 216-218). If the District wishes to provide a shield, please document that process drains are excluded from these definitions and are not covered by other sections of the rule; or document why each process drain that is covered by Rule 8-8 would not be subject to any requirements under Rule 8-8.

96

***Steam Methane Reformer***

Table IX A-11, S4161 - DC H-101 HP3: The District has proposed a permit shield based on NSPS alternate monitoring provisions that require approval by the EPA Administrator. We were not able to locate an EPA approval document in the limited amount of time available to review this permit. Please provide us with either a copy of the EPA approval document or the date and official who signed this approval or remove the shield.

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**SULFUR TREATMENT EMISSIONS**

**Applicable Requirements**

Please add Rules 9-1-301, 9-1-307, and 6-305 to the applicable requirements for the Sulfur Plants or explain in the statement of basis why these rules do not apply.

98

**Federal Enforceability**

Rule 9-1-313.2 should be marked federally enforceable (see table IV-AQ, p. 155).

99

**Monitoring**

1. SCOT Unit: The monitoring conditions on p. 378, condition #12271- SO<sub>x</sub> CEMs, total sulfur gas chromatography as BACT may be useful to evaluate for other refineries. 10
2. Less frequent testing based on a 50% compliance margin is proposed on p410 for SO<sub>3</sub>/H<sub>2</sub>SO<sub>4</sub> and particulate limits - see comment under combustion units/CO boilers/periodic monitoring, above. 10
3. 95% H<sub>2</sub>S limit: annual test is proposed for sulfur plants S1431, S1432, S1765, S4180 (table VII-AH, p. 455). See Tesoro comments under Sulfur Treatment Units/Monitoring (EPA letter to BAAQMD, September 26, 2003, Enclosure B, p. 10). 10
4. Please explain in the statement of basis the origin of the H<sub>2</sub>S limit that changes based on % SJV crudes in table VII-AW for S1494 (p. 471), for S1504, etc (p. 474), and for utility CO boilers 1, 2, and 3 (p. 476). 10
5. Sources 1431, 1432, 1765, and 4180 are all subject to Rules 6-301 (visible emissions) and 6-310 and 6-311 (particulates). However, no monitoring is included for any of these rules in table VII-AH (p. 455). The statement of basis says that for sources 1431 and 1432 no monitoring for Rule 6-301 is required and refers the reader to note 5 for 10

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an explanation (see PM sources and discussion). However, there is no note 5. The District exempts sources 1765 and 4180 from Rules 6-301, 6-310, and 6-311, explaining in the Statement of Basis that these units are subject to an annual source test to determine compliance with the sulfur emissions limit of 6-330 (sulfur recovery units). Similarly, for units 1431 and 1432, the statement of basis requires annual source tests to monitor for compliance with 6-330. An annual source test for sulfur is not sufficient to monitor for compliance with visible emissions and particulate limits. Please include more frequent monitoring to determine compliance with the requirements of 6-301, 6-310, and 6-311. In addition, please explain how the district will monitor for compliance with 6-330 between annual tests.

**SUPPORT FACILITIES**

Source Aggregation: It appears that there may be potential support facilities at the Shell facility. For instance, the Shell Martinez Catalyst plant and Shell Chemical (SIC Code 2911) located on 10 Mococo Rd may be contiguous and/or adjacent to the refinery. The address for Landry Services is listed as the Shell Refinery, although we did not find additional information on emissions or source type in the CARB database<sup>2</sup> beyond the SIC Code (2911) to indicate whether Landry Services could be a support facility. Please inform us whether the District has evaluated potential support facilities in Standard Industrial Classification Code 2911 or other SIC Codes for the Shell Martinez refinery.

10

**TANKS**

**Applicable Requirements**

Rule 8-5-311 has been deleted from the District's rules and the SIP, but is still cited throughout the permit. Please delete this citation and replace it with a citation to 8-5-306.

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**Monitoring**

1. Rules 8-5-320, 8-5-321, and 8-5-322 are applicable requirements for several tanks. However, all monitoring for these requirements has been removed from section VII of the permit. Please add monitoring for these rules. For the appropriate monitoring requirements please refer to Tesoro tank comments (EPA letter to BAAQMD, September 26, 2003, Enclosure A, p. 11-13).

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<sup>2</sup> [http://www.arb.ca.gov/app/emsinv/facinfo/factox.php?dd=&grp=1&sort=FacilityNameA&dbyr=2001&ab\\_=&dis\\_=BA&co\\_=&fname\\_=&city\\_=&fzip\\_=&fsic\\_=2911&facid\\_=&display\\_1=Risk&showpol=](http://www.arb.ca.gov/app/emsinv/facinfo/factox.php?dd=&grp=1&sort=FacilityNameA&dbyr=2001&ab_=&dis_=BA&co_=&fname_=&city_=&fzip_=&fsic_=2911&facid_=&display_1=Risk&showpol=)

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2. Table VII-Y on page 439 mistakenly refers to 328.2 as the emission limit citation. This should be 328.1.2
3. It is not clear why the monitoring requirements specified in section 8-5-402 were deleted from Table VII - P for the internal floating roof tanks on page 530. Tanks that are subject to the requirements of section 8-5-305 should be inspected per section 402. In addition, the monitoring requirements specified in this table pursuant to NSPS Subpart Kb are incomplete. The district should add the additional applicable requirements found in 60.113b. 10
4. Please explain why the monitoring requirements for NSPS Subpart Kb have been deleted from tables VII-X and VII-CN. 11
5. Source 952 should be added to the table of applicable limits and compliance monitoring requirements for the internal floating roof tanks (Table VII - P) on page 530. 11

**THROUGHPUT LIMITS ON GRANDFATHERED UNITS**

The permit appears to be missing the general discussion that is included for other permits to avoid any misunderstanding that these limits could be relied upon to avoid NSR applicability. Please add this language to the permit to clarify that these limits trigger reporting requirements and cannot be relied upon to presume that a unit is, or is not, subject to NSR (Throughput Limits section VI condition #18618 on p.402, etc).

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**Federal Enforceability**

We understand that other throughput limits are federally enforceable limits. Are the capacities listed in condition #4303 p.314 limited to the permit limit, or can Shell exceed them based on “maximum allowable capacity?”

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**WASTEWATER TREATMENT**

**Applicable Requirements**

1. Table IV-DQ (p.291) details the applicable requirements of 40 CFR 60, Subpart QQQ for individual drain systems. Please note that the oil-water separators, including slop oil vessels, are also subject to Subpart QQQ. 11
2. Please verify that sludge dewatering does not occur at the facility. If this process does occur, rule 8-8-304 may apply. 11
3. Table IV-M, Tank 532 (p.103): Please add citations for 61.357(d)(2), (d)(6), and (d)(7). Please also add to monitoring citations in table VII for this source. Please do the same for all tanks subject to 61.357(d). 11
4. Table IV-DV (p.305), refinery-wide requirements: 61.357(d)(2) and (5) are included as applicable requirements. Please add 61.357(d)(6), (7), and (8) or explain why these requirements are not applicable. Also, the monitoring requirement of 61.357(d)(5) applies if the owner/operator elects to comply with 61.342(e). If 61.342(e) is the 11

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chosen option, then the applicant should demonstrate that the flow-weighted annual average water content of facility waste is  $\geq 10\%$ , as described in 61.342(e)(2). Facility waste with less than 10% would be subject to 61.342(c)(1).

5. In our review of the permit, we did not see any permit conditions or requirements for S1467 and S5117 (biotreaters). These units may be subject to 40 CFR Part 61, Subpart FF (e.g., 40 CFR 61.348 and/or CFR 63 Subpart CC). Please explain if these units have any applicable requirements. 118
  
6. No sewer pipelines or process drains were listed in Section II of the permit, though some may be subject to 40 CFR Part 61, Subpart FF and/or 40 CFR Part 63, Subpart CC. Please explain if these units have any applicable requirements. 11
  
7. It appears that the emissions from the LOG API Separator (S1469) and CPI Oil/Water Separator (S1779) are routed to a water scrubber and subsequently to a carbon adsorption system. If the entire system (API separator, water scrubber, and carbon adsorption system) is a closed vent system, please add a permit condition to include the requirements of 61.347(a)(1). 12
  
8. Please provide an explanation as to whether the wastewater ponds (S-1466, S-1468), wastewater separator dubb's box (S-2009), wastewater junction boxes (S-2010), wastewater collection sumps (S-2011), Final EPT 1&2 Holding Ponds 5C & 5D (S-2014), and Bioclarifiers (S-5118 & S-5119) are subject to 40 CFR 61 Subpart FF and/or 40 CFR 63 Subpart CC. 12
  
9. Please explain why there are no permit conditions regarding the carbon adsorption systems for the oil/water separators. See comment for DNF Units below. 12
  
10. DNF Units S-2007 and S-2008: Since emissions from these units are abated by carbon adsorption systems, please include corresponding requirements for S-2007 and S-2008, per 40 CFR 61.354(d). Please also provide an explanation as to how the ppm limits in the permit will result in compliance with 40 CFR 61.354(d). 12
  
11. If the CPI Oil/Water Separator (S1779) is part of the wastewater treatment system, it may be subject to 40 CFR 61.347 and any related monitoring, recordkeeping, and reporting requirements in this Subpart FF, as well as MACT Subpart CC. Please provide a determination in the statement of basis. 12

**Federal Enforceability**

Applicable requirement 60.692-1(d) should be denoted as federally enforceable on page 291 (table IV-DQ, Subpart QQQ for individual drain systems) of the draft permit. 12

**Monitoring**

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1. Benzene Waste NESHAP: Please explain the basis for 61.354(d) alternate monitoring in the statement of basis (Condition #4298 on p312). As noted in prior comments, EPA approval is necessary for NSPS alternate monitoring. 12
  
2. Tank 532: Please add monitoring citations for 61.357(d)(2), (d)(6), and (d)(7). Please do the same for all tanks subject to 61.357(d). 12
  
3. Please spell-out the recordkeeping requirements of 61.356. 12

**GENERAL COMMENTS (MISCELLANEOUS UNITS AND STATEMENT OF BASIS)**

**Applicable Requirements**

1. MACT Subpart UUU conditions listed on p. 414 (section VI, condition #18646) could be used as an example for other facilities. 12
  
2. Coke Handling conditions may serve as an example for other permits (p380-3, section VI, condition #12271): 8 % moisture content to limit crusher emissions; analyze once per day; and other dust-control measures. 13

**Monitoring**

1. In the PM source table (starts p. 57, electronic version, statement of basis), the District refers to note 5 to explain why several sources are not subject to PM monitoring. Note 5 is not included in the PM discussion. Please explain why all sources that refer to note 5 are not subject to PM monitoring. 13

2. Sources 1502, 1503, 1540, 4021, 4171, and 4161 (various units) are subject to Rules 6-301 and 6-310. However, no monitoring requirements are included in table VII, nor is any explanation given in the Statement of Basis. Please add appropriate visible emissions monitoring to table VII for these sources or provide an explanation in the Statement of Basis to justify why none is needed.
  
3. The table VII-CE (p. 501) “process swing gas” limit monitoring should be continuous, since the facility is subject to continuous monitoring of the fuel gas H<sub>2</sub>S pursuant to NSPS Subpart J. If the facility has requested alternate monitoring under 60.13(i), please explain whether EPA has approved this request. Also, please explain how record keeping would demonstrate compliance with the Flexigas H<sub>2</sub>S limit when fuel gas is continuously monitored for H<sub>2</sub>S.