



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IX

75 Hawthorne Street

San Francisco, CA 94105-3901

August 2, 2005

Mr. Mohsen Nazemi
Assistant Deputy Executive Officer
Engineering and Compliance Division
South Coast Air Quality Management District
21865 East Copley Drive
Diamond Bar, CA 97165-4182

Re: EPA Review of the Proposed Title V Permit for ExxonMobil (Facility ID 80089)

Dear Mr. Nazemi:

Thank you for the opportunity to review the proposed title V permit for the ExxonMobil Petroleum Refinery (Facility ID 80089) in Torrance, CA.

As you are aware, SCAQMD initially submitted a proposed title V permit to EPA for this facility in February 2003. EPA provided comments in response to the District's proposal, but SCAQMD did not issue a final permit to the facility. On May 6, 2005, SCAQMD transmitted a revised draft permit to EPA for review, with responses to EPA's 2003 comments. On June 16, SCAQMD formally transmitted a proposed permit to EPA for a formal 45-day review period. As stated in the District's letter, EPA's 45-day review period began on June 20, 2005. EPA's 45-day review period ends on August 3, 2005.

On August 1, 2005, EPA sent preliminary comments to SCAQMD. Per an August 2, 2005 letter from SCAQMD, we understand that SCAQMD will withhold issuance of a final title V permit for this facility for 30 days to allow time to resolve the issues identified in the August 1, 2005 letter to the mutual satisfaction of EPA and SCAQMD.

If, upon issuance of the final permit by SCAQMD, EPA finds that the permit does not satisfy the requirements for title V permits under 40 C.F.R. Part 70 and the District's title V program, EPA retains the authority to reopen the permit for ExxonMobil under 40 C.F.R. §70.7(g)(1).

Again, we appreciate the opportunity to review the proposed permit, and we look forward to working with you and your staff in the coming weeks to finalize an initial title V permit for ExxonMobil. Please do not hesitate to contact me at (415) 972-3974, or Kathleen Stewart (415) 947-4119 and Joseph Lapka (415) 947-4226 of my staff with any questions you may have on our comments.

Sincerely,

A handwritten signature in black ink, appearing to read "Gerardo C. Rios".

Gerardo C. Rios
Chief, Air Permits Office

cc: Barbara Baird, SCAQMD
Carol Coy, SCAQMD
Hamed Mandilawi, SCAQMD
Pang Mueller, SCAQMD
Tran Vo, SCAQMD
Penny Wirsing, ExxonMobil



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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75 Hawthorne Street
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August 1, 2005

Pang Mueller
Senior Manager
Refinery, Energy and RECLAIM Administration
South Coast Air Quality Management District
21865 East Copley Drive
Diamond Bar, CA 97165-4182

RE: Preliminary EPA Comments on the Proposed Title V Permit for ExxonMobil

Dear Ms. Mueller:

The purpose of this letter is to provide the South Coast Air Quality Management District (SCAQMD) with EPA's preliminary comments on the proposed title V permit for the ExxonMobil refinery in Torrance, CA (Facility ID 80089).

As you are aware, SCAQMD initially submitted a proposed title V permit to EPA for this facility in February 2003. EPA provided comments in response to the District's proposal, but SCAQMD did not issue a final permit to the facility. On May 6, 2005, SCAQMD transmitted a revised draft permit to EPA for review, with responses to EPA's 2003 comments. On June 16, SCAQMD formally transmitted a proposed permit to EPA for a formal 45-day review period. As stated in the District's letter, EPA's 45-day review period began on June 20, 2005. EPA's 45-day review period ends on August 3, 2005.

We appreciate the opportunity to review the most recently proposed permit, and are providing our initial comments in the attached document. We look forward to working with you and your staff to address these issues in the coming week. EPA will provide SCAQMD with a final comment letter by the end of our 45-day review period.

Please do not hesitate to contact me at (415) 972-3974, or Kathleen Stewart (415) 947-4119 and Joseph Lapka (415) 947-4226 of my staff with any questions you may have on our comments. We will be available to spend as much time as needed discussing these issues with you between now and the end of our review period.

Sincerely,

A handwritten signature in black ink, appearing to read "Gerardo C. Rios".

Gerardo C. Rios
Chief, Air Permits Office

Enclosures (2)

cc: Barbara Baird, SCAQMD
Carol Coy, SCAQMD
Hamed Mandilawi, SCAQMD
Mohsen Nazemi, SCAQMD
Tran Vo, SCAQMD
Penny Wirsing, ExxonMobil

Attachment 1

PRELIMINARY EPA COMMENTS ExxonMobil (Facility ID 800089) SCAQMD Proposed Permit

August 1, 2005

1. Statement of Basis

A Title V permitting authority must provide EPA with a “statement that sets forth the legal and factual basis for the draft permit conditions.”¹ EPA can object to a proposed title V permit if the permitting authority does not provide enough information to allow a meaningful EPA review of whether the proposed permit is in compliance with the requirements of the Act.² In addition to providing EPA with a copy of the statement of basis, the permitting authority must also provide the statement of basis to “any other person who requests it.” Thus, the statement of basis is an important document for the public’s review of the proposed title V permit because it provides the permitting authority, the public, and EPA a record of the applicability and technical issues surrounding the issuance of the permit.

In recent years, EPA has provided guidance regarding what is necessary for a statement of basis. In a letter dated February 19, 1999 to Mr. David Dixon, Chair of the CAPCOA Title V Subcommittee, EPA Region 9 provided the following list of air quality requirements that should be considered when developing a statement of basis. This list was developed with CAPCOA input and served as guidance to the state permitting authorities about what is necessary for EPA review.

- additions of permitted equipment which were not included in the application;
- identification of any applicable requirements for insignificant activities or State-registered portable;
- equipment that have not previously been identified at the Title V facility;
- outdated SIP requirement streamlining demonstrations;
- multiple applicable requirements streamlining demonstrations;
- permit shields;
- alternative operating scenarios;
- compliance schedules;
- CAM requirements;

¹ See 40 C.F.R. § 70.7(a)(5).

² See May 10, 1991 preamble to the Part 70 regulations at 56 FR 21750 and 40 C.F.R. § 70.8(e)(3)(ii).

- plant wide allowable emission limits (PAL) or other voluntary limits;
- any district permits to operate or authority to construct permits;
- periodic monitoring decisions, where the decisions deviate from already agreed-upon levels (e.g., monitoring decisions agreed upon by the district and EPA either through: the Title V periodic monitoring workgroup; or another Title V permit for a similar source). These decisions could be part of the permit package or could reside in a publicly available document.

In January, 2002, EPA issued three Orders in response to title V petitions in New York. Each Order addressed the statement of basis issue as presented in those petitions. *See In Re Albert Einstein College of Medicine of Yeshiva University*, Petition No. II-2000-01 (January 16, 2002); *In Re Action Packaging Corp.*, Petition No. II-2000-2 (January 16, 2002); *In Re Kings Plaza Total Energy Plant*, Petition No. II-2000-3 (January 16, 2002).

In addition, in a January 7, 2002 *Federal Register* Notice of Deficiency (NOD) for the State of Texas' part 70 program, EPA stated that the state's part 70 program lacked any regulatory requirement for a statement of basis, and that the permits issued by Texas did not include a statement of basis. In describing the statement of basis requirements, EPA said, "a statement of basis should include, but is not limited to, a description of the facility, a discussion of any operational flexibility that will be utilized at the facility, the basis for applying the permit shield, any federal regulatory applicability determinations, and the rationale for the monitoring methods selected."

Also, EPA Region 5 issued a letter shortly before the Texas NOD was published, dated December 20, 2001, to the state of Ohio that provided guidelines to the state on the content of an adequate statement of basis. The letter from Region 5 recommends the same five (5) elements quoted above from the Texas NOD. In addition, however, the Region 5 letter also recommends, in more detail, the following elements of a statement of basis: 1) monitoring and operational restrictions requirements; 2) applicability and exemptions; 3) explanation of any conditions from previously issued permits that are not being transferred to the title V permit; 4) streamlining requirements; and 5) certain factual information as necessary.

Finally, on May 24, 2004, the EPA Administrator signed an order granting in part a petition requesting the EPA to object to the title V permit for the Los Medanos Energy Center. In relevant part, the petitioner alleged that the Los Medanos permit lacked a statement of basis, and that, without a statement of basis it is virtually impossible for the public to evaluate the periodic monitoring requirements (or lack thereof). In granting the petition on this issue, the Administrator of the EPA concluded that, taken together, the existing guidance on statements of basis outlined above provide a good road map as to what should be included in a statement of basis:

Each of the various guidance documents, including the Texas NOD and the Region V and IX letters, provide generalized recommendations for developing an adequate statement of basis rather than "hard and fast" rules on what to include

in any given statement of basis. Taken as a whole, these recommendations provide a good road map as to what should be included in a statement of basis considering, for example, the technical complexity of the permit, the history of the facility, and any new provisions, such as periodic monitoring conditions, that the permitting authority has drafted in conjunction with issuing the title v permit. See In the Matter of Los Medanos Energy Center at 10-11 (May 24, 2004).

EPA Region 9 has relied on the above guidelines and the EPA Administrator's position, as outlined in the Los Medanos Petition, in reviewing the adequacy of the statement of basis for the ExxonMobil permit. Specific deficiencies are identified in comments 2-14, where applicable. See the attached EPA version of the statement of basis for further suggestions on how to improve the statement of basis.

2. Multiple NOVs

EPA's Part 70 regulations require a compliance schedule for "applicable requirements for sources that are not in compliance with those requirements at the time of permit issuance." 40 CFR §§70.6(c)(3), 70.5(c)(8)(iii)(C). Consistent with these requirements, EPA has stated that a compliance schedule is not necessary if a violation is intermittent, not on-going, and has been corrected before the permit is issued. *See In the Matter of New York Organic Fertilizer Company*, Petition Number II-2002-12 at 47-49 (May 24, 2004).

EPA has also stated that the permitting authority has discretion not to include in the permit a compliance schedule where there is a pending enforcement action that is expected to result in a compliance schedule (i.e., through a consent order or court adjudication) for which the permit will be eventually reopened. *See In the Matter of Huntley Generating Station*, Petition Number II-2002-01, at 4-5 (July 31, 2003); see also *In the Matter of Dunkirk Power, LLC*, Petition Number II-2002-02, at 4-5 (July 31, 2003).

SCAQMD has attached the following compliance-related documents to the revised statement of basis for ExxonMobil, sent to EPA on June 1, 2005:

- Summary Report of Violations (May 2002-May 2005);
- Summary of Breakdown Reports (May 2002-May 2005); and
- Variances and Abatement Orders (Cases Filed since January 1, 2000 and Cases Filed Prior to January 1, 2000 with Pending Compliance Dates)

According to these documents, SCAQMD has issued several Notices of Violation (NOVs) to the ExxonMobil facility in the past five years. Some of these NOVs are, as of yet, pending legal action. Additionally, SCAQMD has indicated that ExxonMobil is currently operating out of compliance with Condition 4 of Section E of the permit, which states: The operator shall not use equipment identified in this facility permit as being connected to air pollution control equipment unless they are so vented to the identified air

pollution control equipment which is in full use and which has been included in this permit.” SCAQMD has included Condition I1.1 in the permit, requiring the source to comply with all requirements of District Variance Case No. 1183-384, dated February 16, 2005. This condition is included in the permit pursuant to Rule 3004(a)(10)(C). Rule 3004(a)(10)(C) requires:

For facilities that are not in compliance with all applicable regulatory requirements at the time of permit issuance or permit renewal, a requirement to comply with all requirements of an alternative operating condition, variance or order for abatement issued by the District Hearing Board. The permit shall include a compliance schedule of remedial measures, including an enforceable sequence of actions with milestones, to be taken by the owner or operator to achieve compliance. This compliance schedule shall resemble and be at least as stringent as that contained in any:

- (i) *Judicial consent decree or administrative order to which the source is subject; or*
- (ii) *Findings or decisions issued by the District Hearing Board as a result of any administrative proceeding concerning the source.*

SCAQMD has indicated in phone calls that it is expected that all NOV's will be settled by the time of permit issuance, and that the facility is currently in compliance with all rules and regulations. However, EPA feels that the current record calls for a discussion of the compliance history in the Statement of Basis. As currently drafted, the Statement of Basis on page 23 only contains the statement: “Currently we are not aware of any ongoing violation at the facility.”

Recently, on March 15, 2005, EPA granted petitions to object to the issuance of the title V permits for the Tesoro and Valero refineries in the San Francisco Bay Area on the issue of multiple NOV's (See *In the Matter of Tesoro Refining and Marketing Co.*, Petition Number IX-2004-06, at 14-16, and *In the Matter of Valero Refining Company*, Petition Number IX-2004-07, at 14-17). In requiring the District to reopen the permits to either incorporate compliance schedules in the permits or to provide a more complete explanation for its decision not to do so, the EPA Administrator states:

The District's statements in the permitting record...create the impression that no NOV's were pending [at the time of permit issuance]. Although the District acknowledges that there have been “recent violations,” the District fails to address the fact that it had issued a significant number of NOV's to the facility and that many of the issued NOV's were still pending. Moreover, the District provides only a conclusory statement that there are no ongoing or recurring problems that could be addressed with a compliance schedule and offers no explanation for this determination. The District's statements give no indication that it actually reviewed the circumstances underlying recently issued NOV's to determine whether a compliance schedule was necessary. The District's mostly generic statements as to the refinery's compliance status are not adequate to support the

District's decision that no compliance schedule was necessary in light of the NOVs.

Though there are fewer NOVs for the ExxonMobil facility than for Tesoro or Valero, we find that the situations are significantly similar, and that the conclusion reached for the Tesoro and Valero petition orders are relevant to the ExxonMobil permit. Additionally, the February 19, 1999 letter issued by EPA Region 9 to Mr. David Dixon, Chair of the CAPCOA Title V Subcommittee referred to in Comment 1, above, included compliance schedules as among the items that should be considered in drafting a statement of basis.

In order for the ExxonMobil permit to be in compliance with title V (40 CFR §§70.6(c)(3), 70.5(c)(8)(iii)(C)), and to be consistent with previous guidance, SCAQMD must discuss the need for a compliance schedule for any outstanding NOVs at time of permit issuance; if a compliance schedule for outstanding NOVs is not needed, then the statement of basis should clearly discuss why no compliance schedule is needed. Additionally, SCAQMD should analyze the NOVs to determine whether there is a pattern of recurring noncompliance that should be addressed with a compliance schedule. As with outstanding NOVs, any conclusion that no compliance schedule is necessary should be documented in the statement of basis.

The statement of basis should also discuss the noncompliance with Condition 4 of Section E, and should describe what actions, including milestones, will be taken by ExxonMobil in order to return to compliance with the permit. Finally, Condition I1.1 should be revised to meet the requirements of Rule 3004(a)(10)(C), which requires that the permit include a compliance schedule of remedial measures, including an enforceable sequence of actions with milestones, to be taken by the owner or operator to achieve compliance. As proposed, Condition I1.1 simply requires the source to comply with the District Variance of February 16, 2005, but does not contain, as required by Rule 3004 and 40 C.F.R §§ 70.6(c)(3), 70.5(c)(8)(iii)(C), a compliance schedule of remedial measures with milestones. The permit should specifically state what steps ExxonMobil will take to return to compliance, and the dates by which these steps will be accomplished.

3. NSPS Subpart J Requirements for Flares, Thermal Oxidizers, and Incinerators

A. Applicability

Units C891, C892, D898, D899, C1558, C626, C686, C687

Units C891, C892, D898, D899, and C1558 are flares (D898 and D899 are tank flares). Unit C626 is a tail gas incinerator, and units C686 and C687 are direct gas-fired incinerators. All of these units combust refinery fuel gas, as that term is defined in NSPS Subpart J. If these units were built or modified after June 11, 1973, then NSPS Subpart J should be included as an applicable requirement in the permit. Because of common confusion over how NSPS Subpart J applies to

certain flares, thermal oxidizers, and incinerators, please discuss applicability of NSPS Subpart J to these units in the statement of basis. If all of these units were constructed prior to June 11, 1973, and have not been modified since, then a simple statement regarding date of construction/modification would suffice¹.

Please note that in both the January 7, 2002 NOD for the State of Texas and in the December 20, 2001 letter issued by EPA Region 5 to the State of Ohio, EPA indicated that a statement of basis should discuss any federal regulatory applicability determinations. Additionally, in the March 15, 2005 Orders regarding the title V permits for Chevron, ConocoPhillips, Tesoro, and Valero, EPA consistently required the Bay Area Air Quality Management District to document applicability determinations in the statement of basis. See, for instance, *In the Matter of Tesoro Refining and Marketing Co.*, Petition Number IX-2004-06, at 6, 7, and 43.

*B. Monitoring for the H₂S/SO₂ limit
Units C894, C951, and C952*

Unit C894 is a flare. The permit indicates that this flare is subject to NSPS Subpart J. However, the permit does not require the use of a representative continuous H₂S monitor under 40 CFR §60.105(a)(4), nor does the statement of basis explain why no monitoring has been included in the permit. As proposed, the permit does not appear to contain all applicable requirements, as required by 40 C.F.R. §70.6(a)(1). SCAQMD should either add the monitoring pursuant to 40 CFR §60.105(a)(3) or (4), or explain in the statement of basis any rationale for not requiring such monitoring.

Unit C951 is a tail gas incinerator, and unit C952 is a thermal oxidizer. The permit indicates that these units are subject to the H₂S limit of NSPS Subpart J. Permit condition D82.1 requires ExxonMobil to install and maintain a continuous emissions monitoring system (CEMs) to measure SO_x concentration, in ppm. However, the regulatory basis for this condition is SIP Rule 2011, Requirements for Monitoring, Reporting, and Recordkeeping for Oxides of Sulfur (SO_x) Emissions. Please add NSPS Subpart J as an underlying regulatory basis for this

¹ Please note that this information is not readily available to EPA as we review the permit, nor would this information be readily available to the public. While SCAQMD has included engineering evaluations in a CD attached to the statement of basis, the statement of basis, under the "Construction and Permitting History" section, states: "To facilitate review of the facility's construction and permitting history, a complete copy of the most recent Engineering Evaluations for each permitted piece of equipment at the refinery is included..." In other words, if a piece of equipment has gone through modification since initial construction, we would only have the engineering evaluation for the most recent modification available to review, which may not have the information we need to review applicability determinations.

For instance, in trying to review whether NSPS Subpart J should apply to flare C891, we have looked to the engineering evaluation provided in the CD attached to the statement of basis. The permit only provides one application number for this flare, A/N 383365. This application was submitted in 2001, and is for a modification, rather than initial construction. The engineering evaluation accompanying this application does not indicate the date of construction, nor does it discuss NSPS Subpart J applicability. Important questions to have answered in the statement of basis include: When was this unit constructed? If it was constructed after June 11, 1973, why isn't it subject to NSPS Subpart J? If it was constructed before June 11, 1973, how does the 2002 modification that is the subject of A/N 383365 affect applicability of NSPS Subpart J?

condition so that it is clear that this CEMs must meet the requirements of the NSPS (see Comment 12, below).

4. NSPS QQQ

- A. NSPS Subpart QQQ is an applicable requirement for several emission units at the facility. The Subpart QQQ requirements appear to be imposed on the facility exclusively by subpart-level references in conditions H23.5 and H23.18. This level of detail makes it difficult to determine what specific requirements apply to each unit. For example, 60.692-3 (Standards: Oil-water separators) requires a closed vent system and control device for each separator tank or piece of auxiliary equipment with a certain design capacity. Because the design capacity of a unit is not always apparent, it is difficult to tell by looking at the permit whether this requirement applies to a given unit. The oil-water separator (D680) is required by Condition E336.8 to be connected to the wastewater air pollution control system. However, that requirement is tagged only with the District's BACT rule so it is still unclear whether the incinerators are actually required by the NSPS.

Control devices required pursuant to 40 CFR 60.692-3(b) must meet a specific control efficiency or operate with a specified minimum residence time and temperature. The permit is lacking control requirements that satisfy the NSPS but because of the inadequate level of detail in the permit, it is not possible to determine whether the requirements are not applicable or if their absence is due to an oversight by the District. In an attempt to resolve this issue, EPA asked the District via e-mail to clarify whether any emission units at the facility were subject to the control requirements under 40 CFR 60.692-3(b). The District responded by indicating that it should have the information within a few days. The District's own inability to determine which requirements apply to the facility by simply looking at the permit reinforces the notion that the permit lacks an adequate level of detail with respect to this regulation.

The example discussed above is not the only instance in which clarification is needed. In addition to the standards of 60.692-2 and 60.692-3, the NSPS contains alternative standards that may be used for individual drain systems, oil water separators, slop oil tanks, storage vessels, and other auxiliary equipment. In cases where a regulation contains multiple compliance options, the permit must clearly indicate which compliance option the facility has selected. If the facility desires the flexibility to use multiple options, any alternatives should be incorporated into the permit as alternative operating scenarios and the Permittee should maintain a log to record which option is utilized at any given time. For guidance on the use of alternative operating scenarios, the District is referred to the May 20, 1999 letter from John Seitz to Mr. Robert Hodanbosi and Mr. Charles Lagges regarding title V interface issues.

To resolve this issue, the District should provide a detailed discussion of the applicability of Subpart QQQ in the statement of basis and the requirements of Subpart QQQ must be incorporated into the permit in great enough detail to determine which specific requirements apply to each affected emission unit. The District is reminded that it may still be appropriate to incorporate certain requirements into the permit by reference to Subpart QQQ. However, any references used must be specific enough to define how the applicable requirement applies to each unit at the facility and provide for practical enforceability of the regulation or applicable requirement. For a more complete discussion about the use of incorporation by reference, the District is referred to EPA's *White Paper Number 2 for Improved Implementation of the Part 70 Operating Permits Program*, dated March 5, 1996.

- B. If a control device is required for the oil water separator and any auxiliary equipment pursuant to 60.692-3(b), the permit appears to lack the emission standards discussed above and other Subpart QQQ requirements. If the District finds that a control device is required, the following should be added to the permit at a minimum:
- a. a condition requiring 95% control OR a minimum residence time and temperature of 0.75 seconds and 1,500 degrees F, respectively; and
 - b. a condition imposing the 500 ppm limit on the closed vent system pursuant to 60.692-5(e)(1).

The NSPS contains additional operational requirements for equipment with control devices such as the requirement to install a flow indicator pursuant to 60.692-5(e)(3) and the requirement to install a temperature monitoring device and continuous recorder pursuant to 60.695(a)(1). EPA notes that while the District may choose to incorporate these requirements into the permit by reference, the permit should still be clear about which specific requirements apply to each affected emission unit or control device.

- C. In previous conversations regarding this permit, the District indicated that the "drain system component" (D1907) identified in the equipment list includes the refinery wastewater system in its entirety. This generic grouping of individual wastewater system components may make it difficult for District and EPA enforcement personnel to determine if the refinery is in compliance with the regulation, which contains standards for individual drains, junction boxes, and sewer lines. To address this issue, EPA recommends that the District provide a detailed description of the refinery wastewater system in the statement of basis. EPA notes that SIP Rule 1176(d)(2)(C) requires the refinery to submit to the District a complete list of drain system components identifying the total number, individual location, and type of control. The District should consider summarizing this information in the statement of basis or including the refinery's Rule 1176 compliance plan as an attachment to the statement of basis.

- D. It is unclear why the skim oil/sour water sumps (D630, D638) are not subject to the requirements of NSPS Subpart QQQ. The District should review the applicability of the NSPS with respect to these devices and impose the requirements of Subpart QQQ on them or explain in the statement of basis why the NSPS is not applicable.
- E. For devices D1428 and D1437, it is unclear what the term “recovered oil” refers to and whether or not the recovered oil meets the definition of “slop oil” under NSPS Subpart QQQ. The District should provide an applicability determination for these sources in the statement of basis and incorporate any applicable Subpart QQQ requirements into the permit.

5. SIP Rule 1176

- A. Pursuant to Rule 1176(e)(2)(A) sumps and wastewater separators must be provided with (i) a floating cover, (ii) a fixed cover and closed vent system vented to a control device as specified in paragraph (e)(6), or (iii) an alternative control measure approved in writing by the EO. The permit is unclear about how ExxonMobil is required to comply with this requirement. For example, page 82 of Section D only indicates that device D680 (oil water separator) is “covered;” it does not say whether the cover is a floating cover or a fixed cover. Condition E336.8 of the permit further states that this device must be directed to the air pollution control system.

Although one might deduce that the cover mentioned on page 82 and the control device referred to in Condition E336.8 constitute a system that is meant to comply with Rule 1176(e)(2)(A)(ii), the permit does not establish a clear compliance obligation for the source. Especially in situations such as this where a rule offers more than one compliance option, the permit must be clear about which option the Permittee has selected. In the present case, the permit could benefit from a condition that explicitly requires device D680 to be equipped with a fixed cover and closed vent system that is vented to the control system serving the wastewater treatment system. In the alternative, at a minimum, the District should tag Condition E336.8 with a citation to Rule 1176(e)(2)(A)(ii) to indicate that the control system is in fact used to comply with the wastewater separator requirements of the rule. The District should follow the same procedure for other sumps and wastewater separators at the facility that are subject to the requirements of Rule 1176(e)(2).

- B. As stated above, a control device that is used to comply with sump and separator requirements of Rule 1176(e)(2)(A)(ii) must meet the requirements of paragraph (e)(6) of the same rule. Paragraph (e)(6) requires that control devices either: (A) achieve a control efficiency of 95 percent or greater, as determined by an annual performance test; (B) not emit VOC emissions greater than 500 ppm above background levels, as determined by monthly monitoring; or (C) achieve a level

of control determined by the Control Officer to be equivalent to those specified in subparagraphs (A) or (B). In telephone conversations on July 27 and July 29, 2005, the District explained that its interpretation of the rule allows facilities to switch between compliance methods at will without specifying in advance which method will be used. The District further stated that it would require a finding of simultaneous non-compliance with the requirements of paragraphs (e)(6)(A) and (e)(6)(B) before it could issue a notice of violation for non-compliance with the air pollution control device requirements of Section (e)(6). While EPA gives the District deference in interpreting its own rule, the District has an obligation to issue a permit that assures compliance with all applicable requirements. The current permit does not do so with respect to Rule 1176(e)(6) because it only contains general references to the rule and does not establish a clear compliance obligation for the source.

EPA agrees that the Permittee is entitled to choose any compliance option allowed by the rule. EPA further agrees that the Permittee should have the flexibility to switch between compliance options as necessary. However, in cases where such flexibility is given to a facility, the permit must require that the Permittee demonstrate continuous compliance with either of the options at any given time. As an example of how the permit may not establish a clear compliance obligation for the source, the District is referred to the hypothetical situation in Attachment 2.

This issue can be resolved through the use of alternative operating scenarios pursuant to 40 CFR 70.6(a)(9). Specifically, the permit could require that the facility maintain a contemporaneous log of the scenario under which it is operating. In addition, the permit would explicitly state that the Permittee must be able to demonstrate compliance at any given time with the scenario identified in the log. For example, language similar to that below provides the Permittee with operational flexibility while assuring compliance with Rule 1176. The District may, of course, develop different language that accomplishes the same objective.

Air Pollution Control devices used as a means for complying with Rule 1176(e)(2) shall meet either of the requirements in subparagraphs 1176(e)(6)(A) or 1176(e)(6)(B). Contemporaneously with making a change from one method of compliance to another, the Permittee shall record in a log at the facility a record of the scenario under which it is operating. At all times, the Permittee must maintain source test results or monthly monitoring records, as appropriate, that demonstrate compliance with the chosen option.

- C. Rule 1176(g)(1)(B) states that any operator using an APC device as a means of complying with the rule shall maintain records of system operation or maintenance that will demonstrate proper operation and compliance of the APC device during periods of emission producing activities. Because the rule is not

specific about which records must be maintained, that information should be stated in the permit. For example, the permit should say what specific records are required during the times that the Permittee chooses to comply with the 95% control requirement under 1176(e)(6)(A). For this purpose, EPA recommends maintaining records that demonstrate compliance with a minimum temperature and residence time that are shown to achieve 95% control. EPA notes that Condition C8.1 already requires the Permittee to maintain the incinerator temperature above 1200 degrees F. Provided that this temperature provides 95% control, the District could address this issue by tagging Condition C8.1 with a citation to Rule 1176 and adding a residence time requirement.

- D. For the control of drain system components (DSCs), Rule 1176(e)(7) requires petroleum refineries to comply with the additional requirements of either subparagraph (e)(7)(A) or (e)(7)(B) and it further requires the Permittee to notify the District of its choice. The proposed permit does not state with which compliance option the Permittee is required to comply. The permit lists only four conditions for the drain system components under Process 14 and none of them address this provision of the rule. The District should add a condition to the Permit requiring compliance with the option selected by ExxonMobil.
- E. It is unclear why the vacuum truck wash out sump (D1671) and skim oil/sour water sump (D630) are not subject to the requirements of Rule 1176. Pursuant to Rule 1176(e)(2), sumps must be equipped with a floating cover, a fixed cover and closed vent system routed to a control device, or an approved alternative control measure. The District should add the appropriate control, monitoring, and recordkeeping requirements to the permit for these sources or explain in the statement of basis why they are not subject to the requirements under Rule 1176.
- F. Petroleum refineries are required to prepare and submit a compliance plan pursuant to Rule 1176(d)(2). However, a plan for Rule 1176 is not included in the list of approved plans in Section I of the permit. The District should reference the plan in Section I or explain its absence in the statement of basis.

6. Basis for Tank Non-Applicability Determinations

There are dozens of tanks listed in the equipment list of Section D. Many of these are not subject to any requirements, except for the process-wide requirements of the Benzene Waste Operations NESHAP, Subpart FF (see comment 8, below). Tanks at a petroleum refinery can be subject to a wide number of regulations, depending on a number of different factors, such as size, capacity, physical properties of materials stored, and date of construction. While the table of tanks included in the statement of basis is somewhat useful, it does not provide information on tanks that are not subject to these commonly applicable requirements. The statement of basis should include an evaluation of the tanks and should explain why these tanks are not subject to any of the commonly applicable requirements.

For instance, for NSPS Subpart Kb, the District could include a table of non-applicability, with 3 columns that can potentially account for non-applicability: 1. Capacity in cubic meters, 2. Storage of Volatile Organic Liquids, and 3. Date of construction. With such a table, the District could indicate which tanks fall under each category of exemption. This would help the permit engineers, inspectors, and the source keep track of why these units are not subject, in case conditions change in the future. This is particularly important for units exempt under #2 above.

SCAQMD is referred to EPA's March 15, 2005 Petition Orders for Tesoro and Valero. In response to allegations by the petitioners that the Statements of Basis and the permits for these refineries lack adequate information to support the proposed exempt status for numerous tanks, the EPA Administrator found that:

[T]he majority of sources listed [as exempt] are identified in the December 1, 2003 statement of basis along with a citation from Regulation 2 describing the basis of the exemption. For the sources that fall within this category, EPA finds that the permit record supports the District's determination for the exempt status of the equipment. However, in reviewing the December 16, 2004 Statement of Basis, EPA noted that three of the sources listed [as exempt] are not included in the statement of basis with the corresponding citations for the exemptions. For these sources, the failure of the record to support the terms of the Permit is adequate grounds for objecting to the Permit. See In the Matter of Tesoro Refining and Marketing Co., Petition Number IX-2004-06, at 43-44, and In the Matter of Valero Refining Company, Petition Number IX-2004-07, at 42-43)

In addition, both the January 7, 2002 NOD for the State of Texas, and the December 20, 2001 letter issued by EPA Region 5 to the State of Ohio indicate EPA's position that both applicability determinations and exemptions should be discussed in a statement of basis.

7. MACT Templates

A. MACT Subpart CC, Template #1, Miscellaneous Process Vents

Template #1 on page 1 of Section J of the permit contains the requirements for Miscellaneous Process Vents (MVPs) under MACT Subpart CC for petroleum refineries. In summary, for MVPs, MACT Subpart CC requires the operator to reduce organic Hazardous Air Pollutants (HAPs) by 98% or to 20 ppmv. MACT Subpart CC also contains recordkeeping and monitoring requirements for MVPs and associated control devices.

The equipment and condition list in section D of the permit indicates which process units are subject to the miscellaneous process vent provisions of MACT Subpart CC. Because SCAQMD commendably also lists how each device is

connected, we can also see which control device is being used to comply with the limits of MACT Subpart CC.

SCAQMD has indicated in phone calls that streams from miscellaneous process vents are introduced into the flame zone of heaters used to comply with the miscellaneous process vent requirements of MACT Subpart CC. MACT Subpart CC exempts such units from monitoring and source testing. It is our understanding that only heaters are used to comply with the requirements of MACT Subpart CC, and that vent streams are introduced into the flame zone of all of the heaters used to comply with MACT Subpart CC.

However, neither the permit nor the statement of basis discusses whether the vent stream is introduced directly into the flame zone of these heaters. Because this information is not readily available in the permit, we believe the statement of basis should at least discuss the applicability determination made with respect to the monitoring and source testing requirements for the heaters, pursuant to the guidance on applicability determinations for federal requirements contained in the January 7, 2002 NOD for the State of Texas, and the December 20, 2001 letter issued by EPA Region 5 to the State of Ohio.

Additionally, MACT Subpart CC template #1 includes requirements for flares, and for monitoring requirements for incinerators. These requirements do not appear to be applicable to any units at ExxonMobil. If these requirements are not applicable to any units then they should either be removed from the template, or else the permit should clearly indicate which parts of the template affected units are subject to. For instance, for heaters D232 and D234, the equipment list should indicate that the units are subject to MACT Subpart CC, template 1, parts 1 and 2c. For dryer D176, the permit should indicate that the unit is subject to MACT Subpart CC, template #1, parts 1, 2a, and 2d. While it is possible to piece together information to make an educated guess about which parts of MACT Subpart CC applies to each unit, title V is intended to clearly indicate what a source must do to comply with the Clean Air Act. This goal of title V benefits agency inspectors, the public, and the source.

8. Inadequate Level of Detail for Benzene Waste Operations NESHAP, Subpart FF and other applicable requirements

A. NESHAP FF

Process-wide permit condition P13.1 in Section D of the permit indicates that all of the equipment at 15 of the refineries' processes is subject to the requirements of NESHAP Subpart FF for Benzene Waste Operations. Section H of the permit also contains units subject to NESHAP Subpart FF. The equipment and conditions table for these units contain a 500ppm limit pursuant to Subpart FF and cites to

condition H23.24, which states that several specific units are subject to the applicable requirements of Subpart FF.

Nowhere in the permit does SCAQMD specifically describe which requirements of the NESHAP apply to which units, other than stating a 500ppm limit in the equipment and conditions table. This high level of detail for a standard with several different compliance options, and one that applies to so many different pieces of refinery equipment is inadequate. For example, for tanks, §61.343(a)(1) requires that the operator install a fixed roof and closed vent system that meet certain requirements, including a requirement that the cover and all openings be designed to operate with no detectable emissions as indicated by a reading of less than 500ppmv above background and that each opening be maintained in a closed, sealed position pursuant to §61.343(a)(1)(i)(B). However, §61.343(a)(1)(i)(B) does not apply to any opening if the cover and closed vent system operate such that the tank is maintained at a pressure less than atmospheric, provided that, among other things, the pressure is monitored continuously. As proposed, the permit is unclear as to whether ExxonMobil is complying with §61.343(a)(1)(i)(B), or §61.343(a)(1)(i)(C). This information is necessary for inspectors to be able to determine if ExxonMobil is complying with NESHAP FF requirements for tanks.

In the March 15, 2005 petition order regarding the title V permit for Tesoro Refining in Martinez, CA, EPA addressed a claim that Tesoro's permit failed to include the requirements of 40 C.F.R. Part 61, Subpart FF in any unit-specific tables, making the compliance obligations of the facility unclear. *See In the Matter of Tesoro Refining and Marketing Co.*, Petition Number IX-2004-06, at 8-9.

With the exception of two requirements for closed-vent systems and bypass lines in Table VII -CF, the requirements of NESHAP Subpart FF appeared in Tesoro's permit only through section-level references in a table of facility-wide applicable requirements. In the petition order, EPA determined that this method of incorporation by reference without regard to the individual emission units that are subject to the regulation rendered the permit unenforceable as a practical matter and incapable of meeting the Part 70 standard that it assure compliance with all applicable requirements.

While the ExxonMobil permit does indicate, at least in Section H of the permit, which units are subject to NESHAP FF, there is no indication of which parts of FF apply to which units, nor are the requirements spelled out in the permit. Given the complexity of the NESHAP and the refinery, it is impossible to determine from the permit how the regulation applies to ExxonMobil. This ambiguity and the applicability questions it creates render the permit unenforceable as a practical matter. In addition, the lack of detail detracts from the usefulness of the permit as a compliance tool for the facility.

SCAQMD should revise the permit requirements related to the NESHAP, keeping in mind EPA's guidance in *White Paper Number 2 for Improved Implementation of the Part 70 Operating Permits Program* (March 5, 1996). According to White Paper 2, at a minimum, a permit must explicitly state all emission limitations and operational requirements for all applicable emission units at the facility. Permitting authorities may reference the details of those limits and other requirements rather than reprinting them in permits provided that (i) applicability issues and compliance obligations are clear, and (ii) the permit contains any additional terms and conditions necessary to assure compliance with all applicable requirements. In all cases, references should be detailed enough that the manner in which the referenced material applies to the facility is clear and is not reasonably subject to misinterpretation. We recommend that SCAQMD develop a template similar to the templates used for MACT Subparts CC and UUU in Section J.

B. Other applicable requirements

Similarly, many other requirements in the ExxonMobil permit are included with such a broad level of detail that it is impossible to determine how they apply to the facility. See, for example, comment 5 above, regarding Rule 1176. SCAQMD should evaluate the rules cited in conditions H23.1 through H23.32 on pages 236-244 of Section D of the permit to determine if additional detail is needed, keeping in mind comments 4A and 8A.

9. Electrostatic Precipitators (ESPs)

A. Condition C12.1 requires continuous monitoring of the voltage, current, and spark rate at each ESP field for devices C165 and C166. The condition further states, "if the daily average ESP total power input falls below the level measured in the most recent source test which demonstrated compliance with the emission limit, a source test shall be performed within 90 days at the new minimum daily average ESP total power level." EPA has the following concern with this requirement:

- The 90-day source test requirement is triggered in part by operation outside of the parameter range measured during the most recent source test that "demonstrated compliance with the emission limit." The ESPs and the emission units they serve have multiple emission limits, some of which depend on process rates that may vary from source to source. As a result, the permit is unclear about which limits the minimum power value is based upon and when the source test requirement would actually be triggered.

To address this issue, the permit should explicitly state what the minimum power requirement is. EPA understands that the minimum power requirement has not yet been established and will be based on the results of an initial source test. Once that test has been conducted and the minimum power requirement has been

determined, the specific value should be added to the permit. Prior to the source test, the District should add a power requirement to the permit that is based on the design of the control devices.

- B. Condition D29.3 requires that the Permittee conduct an annual performance test for PM emissions but it does not say with which limits the test is intended to demonstrate compliance. The District should clarify this by either referencing the rules or emission limits in the condition itself or by citing the underlying applicable requirements in the condition's tag. In addition, the condition states that the test should be performed at the outlet of the SCR. Please consider whether the District intended for the test to be conducted at the outlet of the ESP rather than the SCR.

10. Missing Periodic Monitoring for Generally Applicable Requirements

There are several units that are subject to the generally applicable requirements of Rules 401, 404, 405, 407, and/or 409. Rule 401 prohibits the discharge from any source of any air contaminant as dark or darker in shade as Ringelmann No. 1 for any period or periods aggregating more than three minutes in any one hour. Rule 404 limits particulate matter concentration from any source. Rule 405 limits solid particulate to no more than 0.23 kilogram per 907 kilograms of process weight. Rule 407 limits CO and sulfur emissions from any equipment, and Rule 409 limits the concentration of contaminants from the burning of fuel. Because these rules impose no monitoring of a periodic nature, 40 C.F.R. § 70.6(a)(3)(i)(B) specifies that the permit must contain "periodic monitoring sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the permit."

The statement of basis for the ExxonMobil permit states that the SCAQMD relied on the SCAQMD Periodic Monitoring Guidelines for Title V Facilities (1997), the CAPCOA/CARB/EPA Region IX Periodic Monitoring Recommendations for Generally Applicable Requirements in the SIP (1999), and the CAPCOA/CARB/EPA Region IX Recommended Periodic Monitoring for Generally Applicable Grain Loading Standards in the SIP: Combustion Sources (2001) for making periodic monitoring decisions. For many units in the permit there appears to be no periodic monitoring included for assuring compliance with the limits of these rules. Please note that the January 7, 2002 NOD for the State of Texas and the December 20, 2001 letter issued by EPA Region 5 to the State of Ohio indicate that periodic monitoring determinations should be discussed in the statement of basis. Additionally, EPA's petition orders for the Los Medanos Energy Center (May 24, 2004) and for the Chevron, ConocoPhillips, Tesoro, and Valero refineries (see Petition Numbers IX-2004-06 through 09) reiterate the need for periodic monitoring determinations to be included in a statement of basis (see, for instance, *In the Matter of Chevron Products Company*, Petition Number IX-2004-08, at 18-25).

- A. *No monitoring for compliance with Rule 401
Most units*

Rule 401 is incorporated into the permit as a facility-wide condition, such that it applies to all emission units at the refinery. However, there is no monitoring specifically included in the permit to assure compliance with Rule 401. While a handful of units are subject to visible emissions (VE) monitoring, it is not clear whether this monitoring is pursuant to Rule 401, or to some other requirement, such as an NSPS (see comment 13). As such, it is unclear whether SCAQMD has made an active decision that all other units do not need to be monitored to assure compliance with Rule 401, or if the units subject to VE monitoring are simply required to be monitored pursuant to some other rule or requirement.

According to SCAQMD's 1997 Periodic Monitoring Guidelines, SCAQMD has grouped sources as either category I sources, which do not require periodic monitoring to assure compliance with Rule 401, and category II sources, which do require periodic monitoring for compliance with Rule 401. The permit would benefit from having a discussion of category I and II units in the statement of basis, as some periodic monitoring decisions remain unclear to EPA.

For instance, combustion equipment, exclusively landfill, digester, refinery or natural gas-fired, which never encounter dirty, oily, or contaminated materials and which do not require PM or PM10 control are grouped as category I sources for which no monitoring is needed. CO Boiler Unit C164 fires on natural gas, waste heat, and refinery gas, initially indicating that it is a category I source. The permit does not require any periodic monitoring to assure compliance with Rule 401. However, the permit indicates that this unit is hooked up to two electrostatic precipitators, indicating that this unit requires PM or PM10 control. If this unit does require PM or PM10 control, then it appears that the permit is missing periodic monitoring for compliance with Rule 401.

Also, SCAQMD's 1997 guidance includes fuel oil or gasoline fired IC engines as a category II source requiring periodic monitoring for compliance with Rule 401. The permit for IC engines D394, D1686, and D1786 indicates that these units fire on diesel fuel, however, no periodic monitoring is included in the permit to assure compliance with Rule 401. This appears to contradict the SCAQMD's 1997 guidance, and the statement of basis offers no insight as to the decision making employed by SCAQMD for these units. Similarly, incinerators are included as a category II source in the 1997 Guidance, but the permit does not include periodic monitoring for Rule 401 for incinerators, such as C686 and C687. Additionally, tanks storing solid material are also included as a category II source, however for many tanks the permit does not indicate what type of material is stored.

SCAQMD should discuss periodic monitoring decisions made for Rule 401 in the statement of basis, since as currently drafted, the permit does not clearly implement the guidelines of SCAQMD's 1997 Guidance.

B. No monitoring for compliance with Rule 404

Units D83, D84, D85, D120, D917, D918, D920, D269, D270, D949, D950, D367, D927, D928, D929, D930, D931, D1403, and D833

Units D83, D84, D85, D120, D917, D918, D920, D269, D270, D949, D950, D927, D928, D929, D930, D931, and D1403 are heaters and, according to the permit, are fired on natural gas and refinery gas. Unit D833 is an infrequently operated heater fired on natural gas and refinery gas. Unit D367 is a furnace at the hydrogen plant that fires on liquefied petroleum gas, natural gas, and refinery gas. The permit indicates that these units are all subject to the PM limits of Rule 404, however, the permit does not appear to include any periodic monitoring requirements to assure compliance with Rule 404 for these units, nor does the permit appear to justify the lack of periodic monitoring.

The SCAQMD's 1997 Guidelines recommend for all sources subject to Rule 404 that compliance be determined through the following:

- Engineering calculation by the use of appropriate emission factors,
- Equipment limitation,
- Process throughput limit and recordkeeping,
- Requirement to vent the equipment to a control device meeting the monitoring requirements in Appendix A.

The permit for these units does not appear to implement any of these measures. If engineering calculations were used please document this in the statement of basis.

The CAPCOA/CARB/EPA 1999 Recommendations only address periodic monitoring to evaluate compliance with grain loading standards with respect to stack and fugitive emissions from material handling units, not combustion sources. The 2001 Recommendations address certain types of combustion units - specifically, combustion units fired on natural-gas, landfill-gas, and digester-gas. The 2001 Recommendations do not specifically address combustion units that fire on refinery fuel gas or liquefied petroleum gas. The 2001 Recommendations note that periodic monitoring for source categories that are not included (such as refinery-gas fired combustion units) should be determined on a case-by-case basis.

Based on a review of the statement of basis, the permit, and the guidance documents relied on by South Coast in making periodic monitoring decisions, we believe that SCAQMD's apparent decision to not require periodic monitoring for these units for Rule 404 has not been justified. Please add appropriate periodic monitoring, or explain in the statement of basis why no monitoring is needed.

C. *No monitoring for compliance with Rule 405*
Units D57-D62, D86-D91; D129-D135 and D919

Units D57-D62, and D86-D91 are coke drums; Units D129-D135 and D919 are conveyors and screens. The permit indicates that these units are subject to the PM process weight limits of Rule 405; however, the permit neither includes periodic monitoring nor explains the lack of periodic monitoring for the PM process weight limits of this rule. Please add monitoring to the permit for these units, or explain in the statement of basis why none is needed.

D. *No monitoring for compliance with Rule 407- CO*
Units D367, D926, C891, C892, C894, and C1558

Unit D367 is a furnace at the hydrogen plant that fires on liquefied petroleum gas, natural gas, and refinery gas. Unit D926 is a turbine fired on butane, liquefied petroleum gas, natural gas, and refinery gas. Units C891, C892, C894, and C1558 are flares. The permit indicates that these units are subject to the CO limit of Rule 407. However, the permit neither includes periodic monitoring nor explains the lack of periodic monitoring for the CO limit for these sources.

The SCAQMD's 1997 Guidelines recommend the following gap-filling monitoring, testing, and/or recordkeeping for sources subject to the CO limit of Rule 407:

- None for equipment:
 - Where CO emissions are not expected; or
 - Subject to CO emission limits and requirements of source-specific rules in Regulation XI (e.g. Rule 1146, 1146.1)
- Equipment \geq 10 million BTU/hr heat input rating:
 - CEMS for CO pursuant to 40 CFR Part 60 Appendix B & F; or
 - Performance test once every 5 years; or
 - Annual monitoring of exhaust stack for CO using an AQMD-approved portable analyzer; or
 - Parametric monitoring correlated with a performance test
- Other equipment: AQMD-approved portable CO analyzer once every 5 years

Neither the permit nor the statement of basis contains any analysis of the likelihood of these units emitting CO, nor does the permit indicate that these units are subject to the requirements of Rules 1146 or 1146.1.

The CAPCOA/CARB/EPA Periodic Monitoring Recommendations do not address monitoring for CO limits.

Based on a review of the statement of basis, the permit, and the guidance documents relied on by South Coast in making periodic monitoring decisions, we believe that SCAQMD's apparent decision to not require periodic monitoring for these units for the CO limits of Rule 407 has not been justified. Please add appropriate periodic monitoring, or explain in the statement of basis why no monitoring is needed.

*E. No monitoring for compliance with Rule 407- SOx
Units D1943, D671, D653, D654, D1375, D644, D645, D1503, D1504, D1505,
and D1507*

Unit D1943 is a sulfur condenser and units D671 and D1375 are parts of sulfur pits. Units D653 and D654 are Amine contactor vessels. Units D644 and D645 are loading arms. Units D1503, D1504, D1505, and D1507 are holding tanks at the rail car loading rack. The permit indicates that these units are subject to the SOx limit of Rule 407. However, the permit neither includes periodic monitoring nor explains the lack of periodic monitoring for the SOx limit for these sources.

The SCAQMD's 1997 Guidelines recommend the following gap-filling monitoring, testing, and/or recordkeeping for sources subject to the SOx limit of Rule 407:

- None for equipment:
 - Where SOx emissions are not expected; or
 - Subject to SOx emission limits and requirements of source specific rules in Regulation XI; or
 - Burning fuels subject to fuel sulfur limits of Rules 431.1, 431.2 or 431.3 where no other sulfur containing material is introduced to the equipment or the process
- Equipment with high potential SOx emissions:
 - CEMS for SOx pursuant to 40 CFR Part 60 Appendix B & F; or
 - Performance test once every 5 years; or
 - Annual monitoring of exhaust stack for SOx using an AQMD-approved portable analyzer; or
 - Parametric monitoring correlated with a performance test
- Other equipment: AQMD-approved portable SOx analyzer once every 5 years

Neither the permit nor the statement of basis contains any analysis of the likelihood of these units emitting SOx, though a number of these units are located at the sulfur plants. Nor does the permit indicate that these units otherwise meet

the criteria for a no monitoring needed determination pursuant to the SCAQMD 1997 Guidelines.

The CAPCOA/CARB/EPA Periodic Monitoring Recommendations do not address monitoring for SOx limits.

Based on a review of the statement of basis, the permit, and the guidance documents relied on by South Coast in making periodic monitoring decisions, we believe that SCAQMD's apparent decision to not require periodic monitoring for these units for the SOx limits of Rule 407 has not been justified. Please add appropriate periodic monitoring, or explain in the statement of basis why no monitoring is needed.

F. No monitoring for compliance with Rule 409

Units D83, D84, D85, D120, D917, D918, D920, D269, D270, D949, D950, D367, D927, D928, D929, D930, D931, D1403, and D926

Units D83, D84, D85, D120, D917, D918, D920, D269, D270, D949, D950, D927, D928, D929, D930, D931, and D1403 are heaters and, according to the permit, are fired on natural gas and refinery gas. Unit D367 is a furnace at the hydrogen plant that fires on liquefied petroleum gas, natural gas, and refinery gas. Unit D926 is a turbine fired on butane, liquefied petroleum gas, natural gas, and refinery gas. The permit indicates that these units are all subject to the PM limits of Rule 409, however, the permit does not appear to include any periodic monitoring requirements to assure compliance with Rule 409 for these units, nor does the permit appear to justify the lack of periodic monitoring.

The SCAQMD's 1997 Guidelines recommend for all gaseous and liquid fueled sources subject to Rule 409 that compliance be determined by engineering calculations, the use of appropriate emission factors, and exhaust characteristics.

The CAPCOA/CARB/EPA 1999 Recommendations only address periodic monitoring to evaluate compliance with grain loading standards with respect to stack and fugitive emissions from material handling units, not combustion sources. The 2001 Recommendations address certain types of combustion units - specifically, combustion units fired on natural-gas, landfill-gas, and digester-gas. The 2001 Recommendations do not specifically address combustion units that fire on refinery fuel gas or liquefied petroleum gas. The 2001 Recommendations note that periodic monitoring for source categories that are not included (such as refinery-gas fired combustion units) should be determined on a case-by-case basis.

Based on a review of the statement of basis, the permit, and the guidance documents relied on by South Coast in making periodic monitoring decisions, we believe that SCAQMD's apparent decision to not require periodic monitoring for these units for Rule 407 has not been justified. Please add appropriate periodic monitoring, or explain in the statement of basis why no monitoring is needed. If,

pursuant to SCAQMD's 1997 Guidelines, engineering calculations can be used to justify that no periodic monitoring is necessary, please include the results of these calculations, and compare calculated emissions to allowable emissions under Rule 409. Any emission factors, exhaust characteristics, or other assumptions or inputs used to justify no periodic monitoring should be identified in the discussion.

11. Potentially Inadequate Periodic Monitoring for Generally Applicable PM Requirements

For most units where the permit does require periodic monitoring for Particulate Matter, the requirement is a source test once every 3 years. Because the regulatory basis for these monitoring requirements is listed as periodic monitoring pursuant to Rule 3004, the District's periodic monitoring rule, it is unclear if the monitoring requirements described are even intended to demonstrate compliance with the generally applicable PM limits, or if they are intended to demonstrate compliance with something else entirely (see comment 13, below). Assuming that the periodic monitoring for PM in the permit is intended to show compliance with the generally applicable PM limits, we are concerned that the monitoring required may be inadequate, depending on the type of gas the unit is firing on. For example, most of the combustion units at the refinery fire at least occasionally on refinery fuel gas. Depending on the sulfur content of the fuel, more frequent monitoring may be appropriate. Because the 2001 CARB/CAPCOA/EPA Periodic Monitoring Recommendations do not specifically address combustion units that fire on refinery fuel gas or liquefied petroleum gas, the conclusions drawn that no periodic monitoring is needed for units firing on certain types of gaseous fuels cannot be automatically extended to units firing on refinery gas. A case-by-case determination should be made, and should be documented in the statement of basis.

12. Missing Generally Applicable Requirements

Rules 401, 404, 405, and 407 should apply generally to almost all units at ExxonMobil; however, only Rule 401 is listed as a facility-wide applicable requirement in the permit (see Condition F9.1). It appears the Rule 407 SOx limits are missing from many combustion units that are listed as being subject to Rule 404, and to the CO limits of Rule 407. However, any combustion equipment that is expected to emit PM is also likely to emit SOx as well. The statement of basis should discuss the SCAQMD's applicability determinations for Rule 407. There are also relatively few units subject to the PM Process Weight limits of Rule 405. Process weight limits should be particularly relevant to any combustion unit for which the District is including Rule 404 PM limits as applicable requirements. SCAQMD has indicated in a conference call that Rule 405 limits only apply if there is a potential for solid PM emissions from a unit. The statement of basis should discuss this, and should describe the process used to determine which units that would be expected to emit PM subject to Rule 404, would not be expected to emit PM subject to Rule 405.

Please note also, Unit E1901 is used in the permit as a generic grouping of the refinery cooling towers. It is unclear why Rules 404 and 405 are not identified in the permits as applicable requirements for these sources. Furthermore, periodic monitoring may be necessary to assure compliance with the emission limits depending on the operational characteristics of each unit.

EPA recently addressed the issue of cooling tower monitoring for requirements such as these in response to public petitions concerning two petroleum refineries in the Bay Area. In brief, the Bay Area Air Quality Management District determined that generally applicable grain loading and solid particulate matter rules similar to SCAQMD Rules 404 and 405 applied to the cooling towers but that monitoring was not necessary to assure compliance because the calculated emissions were well below the regulatory limits. The District's decision was based on emission calculations that used operational data from the cooling towers and AP-42 emission factors. EPA found in some cases that the District's calculations adequately justified the absence of monitoring, particularly with respect to the grain loading standard due to the relatively high exhaust air flow rates from the cooling towers. However, with respect to the lb/hr solid particulate matter emission limit of BAAQMD Rule 6-311, EPA found that some of the cooling towers have the potential to exceed the emission limit and that periodic monitoring is necessary. Thus, EPA granted the petitions on this issue. See *In the Matter of Tesoro Refining and Marketing Co.*, Petition No. IX-2004-6, at 33-35, (March 15, 2005) and *In the Matter of Valero Refining Co.*, Petition No. IX-2004-07, at 34-36 (March 15, 2005).

The District's failure to identify Rules 404 and 405 as applicable requirements (or demonstrate that they are not applicable) and conduct a periodic monitoring evaluation represents a deficiency in the permit that must be corrected. To address this issue, the District should first identify Rules 404 and 405 as applicable requirements for the cooling towers or demonstrate in the statement of basis why the rules do not apply to these sources. In addition, the District should conduct a periodic monitoring evaluation and add monitoring to the permit as necessary, taking the petition orders into account.

13. Regulatory Basis for Periodic Monitoring

Often when the District uses its periodic monitoring authority under Part 70 to require monitoring to assure compliance with an applicable requirement, the only regulatory citation included in the permit condition is a citation to Rule 3004(a)(4), which is the provision in the District's title V program for periodic monitoring. While this tag technically satisfies the requirement of Part 70 that each permit state the regulatory basis for each condition, it is sometimes difficult to tell with which emission limit or standard the monitoring is intended to assure compliance. This is especially problematic in cases where an emission unit has more than one limit for a given pollutant because you can not always tell if the monitoring requirement is intended to assure compliance with one of the requirements or both. In addition to providing the citation to Rule 3004, EPA recommends that the District also cite the rule with the underlying emission limit or operational standard.

14. Rule 219 Exemptions

Section D, pages 148 and 149, of the permit indicates that several units are exempt under Rule 219 from the Regulation II requirement to obtain written permits for equipment, processes, or operations that emit insignificant amounts of air contaminants. However, we believe the permit does not provide an adequate explanation of how several units listed qualify for the exemptions of Rule 219. For the units listed below, the permit or the statement of basis should provide more information regarding the District's determination that these units are exempt under Rule 219. Note that the December 20, 2001 letter issued by EPA Region 5 to the State of Ohio discusses EPA's expectation that exemptions be discussed in a statement of basis. Please also refer to Comment #5 above for a discussion of EPA's March 15, 2005 Petition Orders as they relate to providing a discussion of exemptions in a statement of basis.

A. *Equipment E1904*
Coating equipment exemption

Equipment E1904 consists of coating equipment that is listed as exempt due to infrequent use or low emissions (see Section D, page 148). However, there is no indication of which specific exemption Equipment E1904 qualifies for under Rule 219(m). SCAQMD should provide an explanation of which provision under Rule 219(m) the equipment qualifies for and, if necessary, provide documentation to demonstrate that the equipment qualifies for the exemption. For example, if a unit is being exempted under 219(m)(6)(A), document that the emissions from the equipment is 3 lb/day or less, or 66 lbs/calendar month or less.

B. *Equipment E2020*
Laminating equipment exemption

Equipment E2020 consists of laminating equipment that is listed as exempt due to infrequent use or low emissions (see Section D, page 149). However, there is no indication of whether E2020 meets the requirements for exemption under Rule 219(m)(6). SCAQMD should provide documentation to demonstrate that the equipment qualifies for the exemption in Rule 219(m)(6). For example, if a unit is being exempted under 219(m)(6)(A), document that the emissions from the equipment is 3 lb/day or less, or 66 lbs/calendar month or less.

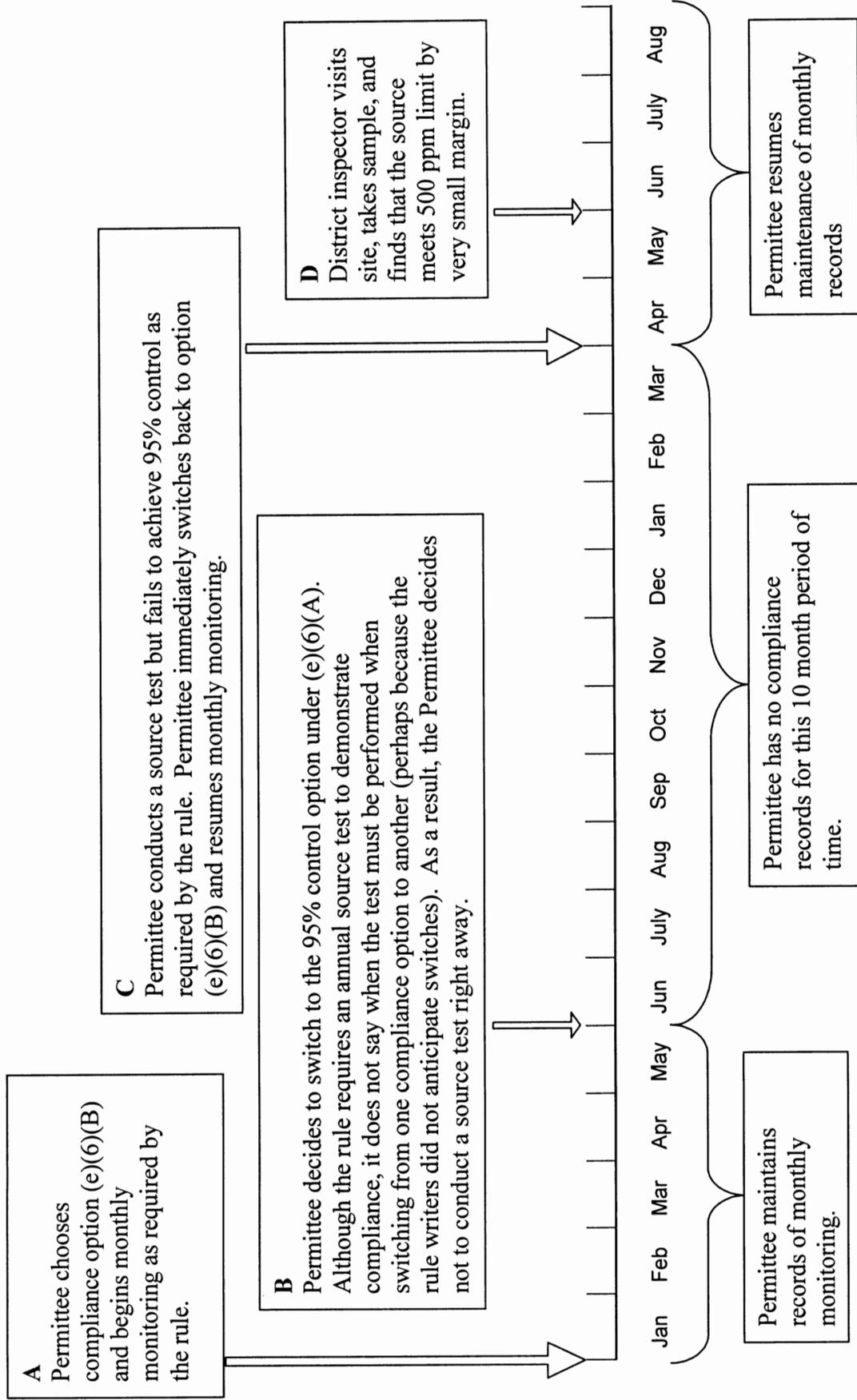
C. *Equipment E2022*
Cleaning equipment exemption

Equipment E2022 refers to cleaning equipment that is, according to the permit, exempt under Rule 219 (see Section D, page 148). However, there is no indication of which specific exemption E2022 qualifies for under Rule 219(p)(1) and whether E2022 meets the requirements for exemption under Rule 219(p)(1). SCAQMD should provide documentation to demonstrate that the equipment qualifies for the exemption in Rule 219(p)(1). For example, if a unit is being

exempted under 219(p)(1)(B)(ii), document that the emissions from the equipment is 3 lb/day or less, or 66 lbs/calendar month or less. Additionally, please verify that Equipment E2022 does not fall under any categories in Rule 219(p)(4), which would disqualify E2022 for an exemption.

Attachment 2:

Potential Compliance Problems Arising From Lack of Detail in Proposed Title V Permit With Respect to Rule 1176(e)(6)



The problem arises in this situation because although the rule requires an annual source test to demonstrate compliance with the 95% control requirement, it does not say when the source test must be conducted in the event the Permittee switches from one option to another. The Permittee's failure to conduct the test immediately upon the change in operation and its subsequent switch back to the

option under (e)(6)(B) results in a 10 month period of time in which it has no records that demonstrate compliance with either of the options. The fact that the facility failed the source test and just barely complied with the 500 ppm limit during the District's inspection creates uncertainty as to whether the facility was actually in compliance with the rule during the previous 10 month period. However, because the District inspector found the emissions to be slightly below the regulatory limit during its inspection, the District may have difficulty issuing an NOV to the Permittee for non-compliance with the rule even though the Permittee is not able to produce records that clearly demonstrate compliance.

The combination of the District's interpretation of the rule, the language of the rule itself, and the lack of detail in the permit fails to establish a clear compliance obligation for the source and could lead to a variety of situations like the one described above. While the District is entitled to its own interpretation of the rule, the District has an obligation to issue a permit that assures compliance with all applicable requirements. As it is currently written, the permit fails to do so with respect to the control requirements of Rule 1176(e)(6).

As previously stated, EPA agrees that the Permittee is entitled to choose any compliance option allowed by the rule and that it should have the flexibility to switch between compliance options as it desires. However, in such cases, the permit should contain an alternative operating scenario pursuant to 40 CFR 70.6(a)(9). The language suggested by EPA (copied below for the District's convenience) solves the problem in this hypothetical situation while still giving the Permittee the flexibility to switch control options whenever it chooses.

Suggested language:

Air Pollution Control devices used as a means for complying with Rule 1176(e)(2) shall meet either of the requirements in subparagraphs 1176(e)(6)(A) or 1176(e)(6)(B). Contemporaneously with making a change from one method of compliance to another, the Permittee shall record in a log at the facility a record of the scenario under which it is operating. At all times, the Permittee must maintain source test results or monthly monitoring records, as appropriate, that demonstrate compliance with the chosen option.