VIA E-MAIL AND U.S. MAIL
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Re: Comments on Draft Major Facility Review Permit for ConocoPhillips San Francisco Refinery, Facility A0016

Dear Mr. Elliot:

Introduction

Even on its third try, the Air District ("District") has failed to get Chevron's Title V permit right. The District has either ignored or dismissed most of the comments submitted by CBE's and the other public commentators. Consequently, CBE incorporates by reference the comments previously submitted on Chevron's Title V permit and the petition submitted to the U.S. Environmental Protection Agency.[1] CBE also joins in the April 2004 comments submitted by GoldenGate Environmental Law and Justice Clinic on Chevron refinery and the other four Bay Area refineries.

This comment letter addresses the changes to Chevron's Title V permit issued in December 2003, for which there was no public comment, and the proposed permit issued in February 2004. CBE's previous comments stand.

[1] *See* CBE Comments to proposed ConocoPhillips' Title V permit, September 27, 2002; CBE Comments on draft Major Facility Review Permits, September 22, 2003; CBE Petition to EPA on Issuance of Title V Permit, November 24, 2003; GoldenGate Environmental Law and Justice Clinic Comments on Proposed Major Facility Permits, September 27, 2002; GoldenGate Comments on Draft Major Facility Review Permits, September 22, 2003; Adams Broadwell Joseph and Cardozo Comments on Proposed Title V Permit for the Phillips Rodeo Refinery, September 27, 2002; Adams Broadwell comments on Bay Area Refinery Title V Permits, September 22, 2003.

The Proposed Permit Does Not Accomplish Title V Public Participation Goals

The purpose of Title V is to provide the public, government, and industry with clear requirements in one document. Unfortunately, the organization of this document does not accomplish Title V's purpose of providing clarity and access. CBE has spent weeks at a time reviewing the various drafts of ConocoPhillips' Title V permit and associated documents. Even on this third round, the organization of this permit is extremely difficult to follow. On many issues, it was necessary to review several different tables and appendices to determine what regulatory requirements, monitoring, and emission calculations applied to a particular source. The large, repetitive, yet conflicting permit has instead forced the public to spend substantial time simply identifying what the District intends. It was necessary to arrange discussions with District staff to decipher the proposed permit. While CBE appreciates the clarifications that staff did provide us, the Title V permit itself must be clear to avoid future disputes in interpreting permit conditions.

The District has admitted extensive errors in the proposed Title V permits, such as improperly changing existing permit conditions, but will not correct those errors.[2] Meanwhile, the District proposes to limit its responses to public concerns on changes made in the most recent proposed permits.[3] This is unacceptable and makes a mockery of public process. The District should correct the proposed permit based on past public comments and heed the comments that follow.

FLARES

The Title V Permit Fails to Include Federally Enforceable Flare Provisions

ConocoPhillips operates two flares at its San Francisco refinery in Rodeo: S-296 and S-398. The District has exempted S-296 from new source performance standards (NSPS), altogether. The District has exempted S-398 from 40 CFR Subpart A and Subpart J requirements, and has replaced some Subpart J requirements with condition 18255.[4] In fact, Subpart A and Subpart J should apply to both flares.

NSPS Applies to Flare S-296

The District has exempted S-296 from NSPS rules reasoning that the flare was constructed prior to 1973 and has not been modified. But the District's conclusion does not hold because the District's interpretation of "modification" is overly narrow, and because, even under the District's narrow interpretation, ConocoPhillips has modified its refinery flare.

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[2] *See* CBE Comments on draft Major Facility Review Permits, September 22, 2003, page 17; *see also* Response to Comments, August 2003, February 2004.

[3] Public Notice - Notice Inviting Public Comment, (that the Bay Area Air Quality Management District is reopening the Major Facility Review Permit for the ConocoPhillips – San Francisco Refinery) Dated: February 24, 2004.

[4] Statement of Basis for ConocoPhillips Refinery, February 2004, page 27.

A modification is:

> any physical change in, or change in the method of operation of, an existing facility which increases the amount of any air pollutant (to which a standard applies) emitted into the atmosphere by that facility or which results in the emission of any air pollutant (to which a standard applies) into the atmosphere not previously emitted.[5]

A change to a source to which the flare is attached, such as an increased throughput, would physically modify the flare and potentially increase the amount of hydrocarbons or any of a host of other air pollutants emitted to the atmosphere. But according to the District, a modification occurs only when the flare burner tip is replaced.[6] The District's interpretation of "modification" is unreasonably narrow. It is generally accepted that a flare consists of more than just a burner tip.

> The typical flare system consists of (1) a gas collection header and piping for collecting gases from processing units, (2) a knockout drum (disentrainment drum) to remove and store condensables and entrained liquids, (3) a proprietary seal, water seal, or purge gas supply to prevent flash-back, (4) a single- or multiple-burner unit and a flare stack, (5) gas pilots and an ignitor to ignite the mixture of waste gas and air, and, if required, (6) a provision for external momentum force (steam injection or forced air) for smokeless flaring.[7]

In designing a flare, important considerations include, among others, reliable burning, hydraulics, liquid removal, air infiltration, and flame radiation.[8] All of these considerations translate into parts that must be included in a flare, such as burner pilots, pilot ignitors, pilot monitors, flame stabilizers, relief valves, knock out drums, and liquid seal.[9] Not all of these changes will qualify for the "replacement" exemption under the modifications rule. The District's position is untenable and the Statement of Basis fails to contemplate other flare modifications that trigger NSPS.

Moreover, ConocoPhillips has replaced the burner tip to S-296.[10] Hence, based on the District's own reasoning, both flares should be subject to NSPS requirements. Additionally, the District should include a condition in the Title V permit that requires the refineries to notify the District when flares tips are replaced and/or when the refinery makes any other flare modification.[11]

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[5] 40 CFR § 60.2.
[6] Statement of Basis for ConocoPhillips Refinery, February 2004, page 18.
[7] Environmental Protection Agency, *AP 42 Emissions Factors*, Chapter 13.5.1., Industrial Flares (attached as Appendix 1).
[8] *Flare System Design – What is Important?* John Zink Company, 1998 (attached as Appendix 2).
[9] Id. at 4-8.
[10] Email from Valerie Uyeda, ConocoPhillips Environmental Department, to Julian Elliot, BAAQMD Engineer, Re: Flare Flowrates for S-296, January 23, 2004 (attached as Appendix 3).
[11] *See* 40 CFR 270.42(a)(b).

ConocoPhillips' Flares Are Subject to NSPS Subpart A

The proposed permit should reflect that both of ConocoPhillips flares are subject to the general requirements set forth in NSPS Subpart A, particularly 40 CFR 60.18 and 60.11. The former section is a general requirement that describes design and operation requirements for control devices that are used to comply with Parts 60 and 61. Subsection (b) of 40 CFR § 60.18 specifically applies to flares. The District appears to have omitted the requirements to S-296 because it claims that the flares are not subject to NSPS requirements at all. This has been shown to be in error. Therefore, the general requirements should apply.

The District has not explained why S-398 is exempt from Subpart A. In fact, 40 CFR § 60.11 applies even when the flare is exempt from the Subpart J, 60.104(a)(1). The provision in 40 CFR § 60.11 requires that:

> [A]t all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions.

ConocoPhillips' Title V permit should include a federally enforceable permit requiring that it flare based on good air pollution control practices, as described above. The refinery flares regularly, based on a random sampling from last year's flaring events. ConocoPhillips flared seven days in June 2003 for a variety of reasons, including shutdowns, startups, valve leaks, hydrocarbon leaks, a condensate pot leak, and shutdown for DCS card failure. Out of the five flaring events in July 2003, three were a result of a unit upset, while two resulted from a malfunction. And the list goes on. EPA has clearly said that regular flaring does not constitute good practices.[12] Why an air District would want to exempt an oil refinery from a best practices rule is a mystery. Nevertheless, the regulation must be included in the permit.

The District's revised permit still omits the more stringent federal monitoring rules outlined in 40 C.F.R. § 60.8. Those rules are necessary to ensure compliance with the District regulation 6-301 requirements.

ConocoPhillips Flares Are Subject to NSPS Subpart J

The permit still improperly exempts ConocoPhillips' two flares from NSPS Subpart J – Subpart J effectively limits the release of SOx to the atmosphere by limiting H2S gas combustion within the flare. It is unclear why the District exempts S-398 from this rule. Regardless of the reason, the District exempts the *flare,* itself, from the regulation instead of exempting *flaring* resulting from upset conditions. But 40 CFR § 104 regulates flares, not flaring, and internally creates an exemption for upset gas flaring. That section states in pertinent part that, "[t]he *combustion in a flare* of process upset gases or fuel gas that is released to the flare as a result of relief valve leakage or other emergency malfunctions *is exempt* from this paragraph."[13] Thus, the District cannot justify exempting flares from this rule.

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[12] *See* EPA Enforcement Alert, Vol. 3 No. 9, October 2000.

[13] 40 C.F.R. § 104(a)(1).

The District states that flare S-398 only burns upset gas.[14] But the District provides no basis for this assumption. The District itself has identified, in its BAAQMD flare Technical Assessment Document and during flaring workshops, including one held on March 2,4 2004, categories of non-emergency flaring that includes flaring associated with planned Startup & Shutdown, and routine flaring used to eliminate waste gases in a non-emergency context. The conclusion in the proposed permit also contradicts EPA's finding that regular flaring occurs at refinery flares, and that regular flaring does not constitute an emergency.

> [T]he malfunction/upset exemption under NSPS Subpart J applies only to extraordinary, infrequent, and not reasonably preventable upsets. Additionally, the malfunction/upset cannot be the result of poor maintenance or careless operations. Once you determine the cause of a malfunction/upset, you should work to correct the root cause in order to prevent it from occurring again. Each time that is done, malfunctions/upsets should become less frequent.[15]

The flaring data that ConocoPhillips and other refineries have submitted to the District reveals that flaring is not infrequent. Therefore, the District must include Subpart J as an applicable requirement for the refinery's flares, including the H2S limit.

Recommended Action:

1. *Indicate in the Statement of Basis that the flare burner has been replaced on S-296 and include NSPS requirements in the Title V permit for this source.*

2. *Ascertain whether ConocoPhillips has made other flare modifications on S-296 and provide the basis for any determination.*

3. *Include a condition in the Title V permit requiring that ConocoPhillips notify the District when flares tips are replaced and/or when the refinery makes any other flare modifications.*

4. *Describe what refinery source each flare is attached in order to further determine flare modifications and NSPS applicability.*

5. *Include Subpart J, 40 CFR § 60.104 as an applicable requirement for both flares because ConocoPhillips' flares are not exempt from this rule.*

6. *Add 40 CFR § 60.11 and 60.18 as an applicable requirement to both flares.*

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[14] Statement of Basis for ConocoPhillips Refinery, February 2004, page 29.

[15] Letter from John B. Rasnic, Director Manufacturing, Energy and Transportation Division Office of Compliance, Environmental Protection Agency, to Phillip E. Guillemette, Director for the Environmental Affairs, Koch Refining Company LP, December 2, 1999, page 5 (attached as Appendix 4). *See also*, EPA Enforcement Alert, Vol. 3 No. 9, October 2000.

7. Include 40 CFR § 60.8 to the NSPS applicable flares to ensure compliance with 6-301.

The Miscellaneous Operations Rule Should Apply to the Refinery Flares

The permit does not apply the miscellaneous operations rule to flares. Consequently, the flares are not subject to any District rule that limits emissions. The District still has not demonstrated that the flares function at a ninety percent efficiency rate, qualifying as exempt from rule 8-2. Adding insult to injury, the District does not even include conditions in the permit that would increase the likelihood that ConocoPhillips, or the other refineries, would meet the ninety percent rate.

Recommended Action: Include the miscellaneous operations rule, 8-2-301, as an applicable Title V permit requirement.

The Permit Appears to Contain Flare Emission Limits for Which No Basis Is Provided

The proposed permit included a condition at the end describing that appeared to limit flaring emissions without any basis for the emission limit chosen. The condition states, in pertinent part,

> The owner/operator shall not flare more than 1.69 E 6 pounds per hour of vent gas (total) as defined in Regulation 12-11-210 at flares S-296 and S-398. [Regulation 8-1-110.3; 2-1-403][16]

Neither the permit nor the Statement of Basis provides a rationale for these numbers and the intent is unclear. These high value numbers imply that emissions limits have been set for each of these flares, but they have not been formally set. Moreover, if these limits are construed as emission limits, they are so high as to be effectively no limit at all. They also conflict with the Miscellaneous Operations 15lb/day limit, which the District should enforce for these sources.

The instruction, "The owner/operator shall not flare more than 1.69 E 6 pounds per hour of vent gas" is ambiguous. It may be taken to limit the amount of gases inside the flare, but it could also possibly be construed to limit the pounds of gases emitted to the air by the flare. At minimum, this ambiguity must be resolved before the permit is issued.

While it would be appropriate to set limits to ensure that flares are not used at throughput levels higher than their design allows, the excerpted condition appears to go well beyond this. It appears to set up fake permit emission limits which are significant. Even if these limits are meant as gases within the flare, some portion of which are destroyed in the flame, these still result in significantly high emissions.

Whether construed in lbs/hr per day, or tons per day, this permit could allow significant emissions. Moreover, these numbers have no apparent basis, conflict with other District requirements.

[16] ConocoPhillips' proposed Title V permit, February 2004, page 278, Condition 18255.

Recommended Action:

1. *Clarify in the permit and SOB that condition 18255 does not set actual emissions limits for the flares or describe the basis for setting such limits.*

2. *Resolve the ambiguities in condition 18255 by clarifying whether the "vent gas" limit refers to the amount of gases inside the flare or the amount emitted to the air.*

The Permit Must Include Effective Flare Monitoring

The District admits that broader use of flaring for routine purposes could occur without being monitored. The District also acknowledges that violations could occur if more gas is flared than the flare is rated for, but concludes that these violations would be temporary and offset by safety considerations. The District wrongly places primary reliance for this conclusion on a 90 % reduction of hydrocarbon destruction efficiency standard, which refinery flaring has demonstrated to be incorrect, and on application of either three-minute monitoring by a trained observer (after a thirty-minute wait following the inception of an incident) or the "no visible emissions" standard. The District' mock Q & A section in Appendix C about the effectiveness of flare monitoring does not address the scenarios presented in CBE's prior comment letters which showed contradictions between allowable capacities and emissions based solely on flaring. By simultaneously improperly narrowing application of its rules to smaller sources and limiting monitoring for larger sources, the District seemingly is seeking to ensure that substantial amounts of emissions will not be regulated or detected.

Recommended Action: Add 40 CFR 60.18 as an applicable requirement to both flares.

CBE Is Concerned That ConocoPhillips Has Used the Title V Permitting Process to Increase Capacity

This latest version of ConocoPhillips' permit increases the listed capacity for both flares, S-296 and S-398, without a stated basis.[17] This is improper. The District may not change flare capacity through the Title V process without the comprehensive, integrated review that the Title V permitting process is meant to enable.

The District has improperly increased the capacity of other sources in addition to the flares. In response to ConocoPhillips' permit appeal, the District, increased the daily capacity for S-319, the gasoline fractionating unit in Table II-A, from 7,500 to 9600 bbl. The District made similar increases to several other sources, such as the S-305 prefractionator, and S-300, the delayed Coker. The District attributes these increases to "corrections." The District's pattern of allowing incremental increases in capacity at large industrial sites is an issue of great concern to CBE.

Recommended Action: Replace the flare capacity in the proposed permit with the original capacity listed in the permits. Do the same for S-319, S-305, and S-300.

[17] ConocoPhillips Proposed Permit, February 2004, pages 129-130, 287-288.

REPORTING AND MONITORING

The District Continues to Ignore Monitoring for Many Sources of Emissions

A primary substantive change to monitoring in ConocoPhillips' revised Title V Permit was incorporation of new the District "NOx Box" permit conditions consistent with Rule 9-10. However, the District's rationale for not monitoring for particulate matter whenever sources use gaseous-fired combustion simply because complaints have not been made, is unacceptable.

The District proposes global exemptions from monitoring for particulates for all gaseous-fired combustion sources. The District asserts that no monitoring is necessary because no visible emissions are normally associated with these sources and thus, presumably, the amount of particulates is not worth its attention. The District also presents a corollary rationale that particulate monitoring is unneeded so long as there is "no nuisance particulate fallout."

Recommended Action: Include monitoring for particulate matter even when gaseous-fired combustion is used because reliance on community complaints is not affirmatively protective and because the exemption from monitoring does not provide necessary assurances.

The District Must Incorporate Monitoring Previously Requested

CBE and other commenters identified additional sources for which monitoring is needed in its September 2002 and September 2003 comment letters. The District continues to ignore the need for monitoring of additional sources of substantial emissions at the ConocoPhillips refinery. *Specific additional monitoring is needed as follows*:[18]

(1) The District's proposal for fuel sampling for SO2 emissions to supplement inoperable monitors is narrowly construed and fails to address a broader need for monitoring of facilities with substantial unmonitored emissions and for operations during non-steady state flow conditions, which are far more widespread than the District acknowledges;

(2) The District has refused to *provide a list of NOx and CO sources accompanied by a discussion of the applicability* of the District policies to each source of these pollutants, as repeatedly requested by CBE;

(3) The District acknowledged in its August 2003 Responses that concerns about several unregulated emissions sources identified by CBE and other commenters had merit---such as from *pressure relief valves, marine loading emissions, and cooling towers*---but continues to defer consideration of effective regulation to an unspecified future rather than taking present corrective actions;

[18] For a detailed explanation for the need for this additional monitoring, *see* CBE Comments to proposed ConocoPhillips' Title V permit, September 27, 2002; and CBE Comments on draft Major Facility Review Permits, September 22, 2003.

(4) The Title V Permit does not consider or propose *monitoring of emissions which occur associated with refinery startup, shutdown and malfunction,* supposedly based on an EPA an administrative amendment to statute. The District's reliance on this amendment, itself, contradicts the District's stated position that it relies solely on the "plain meaning" of the federal Clean Air Act statute;

(5) The District fails to *provide additional regulatory monitoring for upsets or other than normal, routine operations* because it presumes that refineries will take prompt, corrective actions;

(6) The District claims that there is no need to *impose monitoring for particulates, sulfur, and ammonia* except on a demonstrated, as-needed basis because it assumes its general regulations are adequate;

(7) The District assumes that *short flaring events (less than 15 minutes)* are self-corrected, not recurring, and not a significant source of emissions;

(8) The District does not address needs for *additional monitoring of storage tanks, valves and fittings* because it presumes that requirements that refineries notify the District of service changes and existing enforcement provide adequate protection;

(9) The District neglects *monitoring of internal combustion engines for opacity and fine particulates* because of the use of low-sulfur, low aromatic diesel fuels in California;

(10) The District deems *monitoring for opacity and fine particulates for steam heaters and boilers* as inappropriate because this is solely a California law requirement rather than a federal requirement;

(11) The District neglects *monitoring for opacity and fine particulates for asphalt plants* because it presumes that mist eliminator devices are not likely to fail;

(12) Even where monitoring is proposed, the District does not address CBE's request that specific reporting requirements include *regular submittals of log data* to the District to facilitate public inspection and, instead, the District appears to allow monitoring records to be inaccessible at the refinery itself.

The Permit Must Clarify Measurement Standards

CBE is also concerned that citations to Reg. 6-305 have been changed from "opacity" standard to "FP" (filterable particulate) standard. There are different ways to measure FP; for instance, EPA assumes that all filterable particulate is PM10. The District does not describe how it will measure FP, creating an ambiguity in the permit, and potentially loosening the applicable standard. The Permit should either return to the opacity standard, or define how FP is to be measured.

Recommended Action: Replace the FP standard in the proposed permit with the opacity standard, or define how FP is to be measured.

The Permit Still Does Not Specifically Delineate Reporting Requirements

The Air District still fails to address CBE's comments about the need to specifically delineate reporting requirements and log data submittals.[19] As discussed in CBE's first round, and referenced in CBE's second round of comments, the monitoring, recordkeeping and reporting requirements in the proposed permits are inadequate to assure compliance and public review of the compliance.[20] Title V regulations set clear requirements for monitoring, recordkeeping, and reporting. The Clean Air Act requires each permit to "set forth inspection, entry, monitoring, compliance certification, and reporting requirements to assure compliance with the permit terms and conditions."[21] The Permit must contain enough detail to so that it will be a comprehensive, stand-alone document.

Most glaringly, the Permit still fails to specifically delineate reporting requirements, an issue that CBE has consistently commented on with no direct response from the District. The 2004 Statement of Basis attempts to address this problem by stating that,

> [t]he permits must contain all applicable requirements (as defined in the District Regulation 2-6-202), monitoring requirements, recordkeeping requirements, and reporting requirements. The permit holders must submit reports of all monitoring at least every six months and compliance certifications at least every year.[22]

Although General Permit Condition F (Monitoring Reports) requires the refinery to submit monitoring to the District at least once every six months, the lack of a specific directive with each record keeping requirement in the Draft Permit creates ambiguity. This ambiguity could result in the facility arguing that very few items must be reported to the District and then withholding important information that must be publicly available under Title V. The District must change this Condition F to add the following italicized language: "Reports of all required monitoring *and reports of data from all logs maintained at the facility* must be submitted to the District at least once every six months, except where an applicable requirement specifies more frequent reporting." The permit should not be finalized until this change is incorporated.

Recommended Action: Specifically delineate reporting requirements and log data submittals for each source.

CONCLUSION

CBE requests that the District make the changes described above and in the attached documents to the proposed Title V permit. The District seems to operate on the premise that what happens

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[19] *See* CBE Comments on draft Major Facility Review Permits, September 22, 2003, page 6.
[20] *See, e.g., Natural Resources Defense Council, Inc. ("NRDC") v. Environmental Protection Agency*, 194 F.3d 130, 133 (D.C. Cir. 1999) (with Title V, "Congress expressed an intention to obligate sources to a more stringent reporting standard").
[21] Clean Air Act § 504(c)
[22] Statement of Basis for ConocoPhillips Refinery, February 2004, page 3.

at large urban oil refineries is more of a concern to the corporate ownership than to those who bear the burden of toxic pollution namely, the people who live and work in and around the refinery. The District's assumption is fallacious. It is time that the District take public comment on these Title V permits more seriously and create more stringent, not more lax, refinery rules. The permit must not be issued in its current form.

Very truly yours,

Adrienne Bloch
CBE Staff Attorney