

GOLDEN GATE UNIVERSITY

ENVIRONMENTAL LAW AND JUSTICE CLINIC • SCHOOL OF LAW

April 14, 2004

By U.S. Mail & Electronic Mail

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Re: Comments Pursuant to BAAQMD Regulation 2-6-412 on the Reopening of Major Facility Review Permits: Tesoro Refining and Marketing Company-Facility #B2758 & #B2759, Valero Refining Co. – California-Facility #B2626, Chevron Products Company-Facility #A0010, ConocoPhillips – San Francisco Refinery-Facility #A0016, Shell Martinez Refining-Facility #A0011

Dear Air Quality Engineers:

I. Introduction

We are writing to provide comments on behalf of Our Children's Earth ("OCE"), Environment California, and Sierra Club-Redwood Chapter-Solano Group (commenting on the Benicia Refinery only) (hereinafter "Commenters"), pursuant to BAAQMD Regulation 2-6-412, on the Bay Area Air Quality Management District's ("District") February 2004 draft Major Facility Review Permits for Tesoro Refining and Marketing Company, Facility #B2758 & #B2759 ("Tesoro Refinery"), Valero Refining Co. – California, Facility #B2626 ("Valero Refinery"), Chevron Products Company, Facility #A0010 ("Chevron Refinery"), ConocoPhillips – San Francisco Refinery, Facility #A0016 ("ConocoPhillips Refinery"), and Shell Martinez Refining, Shell Oil Products, U.S., Facility #A0011 ("Martinez Refinery") (collectively "2004 draft Refinery Permits").

OCE originally submitted timely comments on the 2002 drafts of the five Refinery Permits on September 9, 2002 ("Valero Refinery"), September 13, 2002 ("Martinez Refinery"), September 17, 2002 ("Tesoro Refinery"), September 27, 2002 ("Chevron Refinery"), and September 30, 2002 ("ConocoPhillips Refinery") (collectively "2002 Refinery Comments"). The Sierra Club-Redwood Chapter-Solano Group joined in the Valero Refinery comment letter and the California Public Interest Research Group (now "Environment California") joined in the Chevron Refinery and ConocoPhillips Refinery comment letters.

The Refinery Permits were revised and reissued for public comment in August 2003. OCE submitted timely comments on the August 2003 drafts of the five Refinery Permits in a letter submitted to BAAQMD on September 22, 2003 (“2003 Refinery Comments”). Environment California joined in the comment letter and the Sierra Club-Redwood Chapter-Solano Group joined the comment letter for purposes of the Valero Refinery.

To the extent the District has not yet addressed Commenters’ 2002 and 2003 Refinery Comments, please consider those comments to have been submitted during the public comment period for the 2004 draft Refinery Permits, and such comments are incorporated herein by reference.

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II. Refinery Flare Permit Conditions

A. Refinery Flare Conditions Should Include All Necessary Operating and Monitoring Conditions

In the 2004 draft Refinery Permits, the District has added new operating and monitoring conditions for flares¹ subject to BAAQMD Regulation 12-11. Several of these new conditions are intended to ensure that flares comply with the federally-approved BAAQMD Regulation 8-2 (Emission limitations for miscellaneous sources).

According to the Statements of Basis for the Refinery Permits, the District has determined that flares qualify for an exemption from Regulation 8-2 when they fulfill the requirements of Regulation 8-1-110.3. Regulation 8-1-110.3 exempts operations that reduce 90 percent of their volatile organic chemical emissions to carbon dioxide.²

In the Statements of Basis, the District concludes that, “there is a strong assurance that a 90% reduction is achieved during proper flare operation.” Therefore the District maintains that compliance with Regulation 8-2 can be reasonably guaranteed by adding permit conditions designed to ensure the proper operation of flares.³ The conditions identified by the District that are necessary for proper operation are:

- Gas flow to the flare should not exceed the flare’s design capacity
- Flared gases should have sufficient heating value
- A flame should always be present at the flare

¹ See Valero Refinery Condition #20806, Tesoro Refinery Condition #19528.11, Chevron Refinery Condition #18656, ConocoPhillips Refinery Condition #18255, Martinez Refinery Condition #18618 Parts 11 through 19.

² BAAQMD Regulation 8-1-110.3 exempts “[a]ny operation or group of operations which are related to each other by being a part of a continuous process, or a series of such operations on the same process material, which are subject to Regulation 8, Rule 2 or Rule 4, and for which emissions of organic compounds are reduced at least 85% on a mass basis. Where such reduction is achieved by incineration, at least 90% of the organic carbon shall be oxidized to carbon dioxide.”

³ See Statements of Basis at pp. 15-17 (Valero), pp. 15-17 (Tesoro), pp. 16-18 (Chevron), pp. 25-27 (ConocoPhillips), pp. 8-10 (Martinez).

Commenters support the inclusion of additional operational controls into the Refinery Permits to ensure proper flare operation. However, we also have two objections related to the specific approach set out in the 2004 draft Refinery Permits, as follows:

1. Only one of the three necessary operating conditions – the limitation on gas flow rate – has been listed as an enforceable requirement in the Refinery Permits. The District should also include a requirement for a minimum net heating value for flared gas, as well as a requirement for the continuous presence of a flame at the flare. In addition, these operating conditions should be listed as federally enforceable in Table IV of the Permits. 2

2. Since the flare operating conditions are designed to ensure compliance with BAAQMD Regulation 8-2, it is appropriate that they be listed as federally enforceable. However, the District is also relying on monitoring information obtained pursuant to Regulation 12-11, specifically Regulations 12-11-501, 502 and 503, to verify compliance with the federally enforceable operating conditions for flares. Where the required Title V monitoring coincides with District imposed monitoring, the District should list the monitoring as federally enforceable. Therefore these sections of Regulation 12-11 should thus be listed as federally enforceable. 3

B. Video Monitoring of Short-Duration Flares and Compliance with Regulation 6-301

The District has also revised the Permit conditions to ensure flare compliance with the federally-approved BAAQMD Regulation 6-301 (opacity limitations).⁴ The new conditions require flare inspection within thirty minutes from the start of a flaring event (15 minutes to determine a flaring event and an additional 15 minutes to begin inspection of the flare for opacity).

In previous comments on earlier versions of the permits, Commenters noted that the District’s monitoring conditions would not be sufficient to ensure that short-duration flaring events were in compliance with Regulation 6-301. At that time we recommended that the District require continuous video monitoring of flares and use this monitoring to determine compliance with opacity limitations. Since then, the District promulgated Regulation 12-11 which requires continuous video monitoring for larger flares at refineries. According to Regulation 12-11-507, video monitoring will consist of recording a digital image of the flare and flame “at a frame rate of no less than 1 frame per minute.” Given this rate of video monitoring, the initial inspection time for video-monitored flares could be set at a period less than 30 minutes by using the recorded video images and a criterion of “no visible emissions.” The District should set a shorter time for initial inspection, which would ensure that short-term flares (i.e., those shorter than 30 minutes) are in compliance with the opacity rule. In addition, consistent with the above, a flaring event should be defined as “any flow of flared vent gas that exceeds 330 standard cubic feet per minute.” 4
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Finally, we note that the District proposes to allow video monitoring as an option for verifying compliance with the opacity requirements. Therefore, the video monitoring component of Regulation 12-11 should also be listed in the Permits as federally enforceable. 7

⁴ See Valero Refinery Condition #20806, Parts 3 through 5, Tesoro Refinery Condition #19528, Parts B through D, Chevron Refinery Condition #18656 Parts 3 through 5, Martinez Refinery Condition #18618 Parts 14 through 16, and ConocoPhillips Refinery Condition #18255 Parts 3 through 5.

C. The Statements of Basis Do Not Provide Sufficient Justification for Flare Design Capacities

The permit conditions contain proposed vent gas limitations for flares at the refineries.⁵ According to the Statements of Basis for each Permit these limits are based upon the flares' design capacities. However, no calculations have been provided to support the vent gas limitation values and therefore the permit conditions lack a sufficient basis. Please provide additional justification for these values.

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In particular, the District should show that the proposed gas flow limitations for flares are consistent with the flare control requirements defined in federal regulations such as 40 C.F.R. § 60.18 (including exit velocity conditions). In addition, considering the uncertainties associated with flow and composition monitoring, as well as the fact that the proposed limitations are defined in terms of hourly averages,⁶ the allowable gas flow rates should incorporate a margin of error to ensure that flare capacities are not exceeded at any time.

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D. The District Does Not Provide Sufficient Basis to Exclude Refinery Flares from 40 C.F.R. § 60.18 Requirements

The District has omitted the requirements of 40 C.F.R. § 60.18 for several flares in the Valero and Martinez Refinery Permits. For example, the Martinez Statement of Basis, at page 6, states that “40 CFR 60 Subpart A has been deleted from Table IV-AXa for A101, A102 and A103. Table IV-CX for S4201 is correct (it is also not subject to 40 CFR 60 Subpart A).” The Valero Refinery Permit, at page 80, lists Subpart J requirements for NSPS Flare S-19 but does not include 40 C.F.R. § 60.18 requirements.

The District does not provide a sufficient basis for omitting § 60.18 in these cases. Such flares may be subject to § 60.18 if they are used, for example, as abatement devices to comply with 40 C.F.R. 60 Subpart GGG (in particular, see the requirements of 40 C.F.R. Subpart 482-10(d) which are incorporated into Subpart GGG by reference). Another example in which these flares would be subject to § 60.18 is if they were used to comply with 40 C.F.R. § 61 Subpart FF (specifically section 61.349(a)(2)(iii)).

Moreover, 40 C.F.R. § 60.18 applies to flares that are used to comply with relevant Part 60 and 61 standards regardless of whether the flares themselves are new or modified sources. We therefore request that the District provide an adequate basis statement justifying the exclusion of 40 C.F.R. § 60.18 requirements for any flare at the subject refineries, regardless of its status as new or modified source.

⁵ See Valero Refinery Condition #20806 Part 1, Tesoro Refinery Condition #19528-11, Chevron Refinery Condition #18656 Part 1, ConocoPhillips Refinery Condition #18255 Part 1, Martinez Refinery Condition #18618 Part 12.

⁶ Defining gas flow limitations in terms of hourly averages will permit a short-duration excursion above the design capacity of the flare as long as the hourly average is not exceeded. If flares are operated above their design capacity for durations less than an hour, they would not satisfy the District's stated conditions for an exemption from Regulation 8-2.

E. Assuring Compliance with 40 C.F.R. § 104(a)(1) Exemption Conditions

Flare S-19 at the Valero Refinery is listed as exempt from the requirements of 40 C.F.R. § 104(a)(1) because it reportedly only burns gases from process upsets and malfunctions. However, no monitoring is proposed in the Refinery Permit to ensure that this flare will only burn gases from process upsets and malfunctions. At a minimum, the Permit should require the refinery to do record-keeping and reporting for this requirement.

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F. ConocoPhillips Refinery Flare Condition

Permit condition 18255 Part 1 states that “[t]he 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.” This language is vague and appears to allow the total quantity of vent gas to be flared at one of the flare devices. If the 1.69 E 6 pound-per-hour limitation was set by taking the sum of the capacities of the two flares, then the condition would allow each flare to operate well above its own operating capacity. In order to prevent this problem, the permit should define a separate vent gas limitation for each source.

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G. Miscellaneous Typographical Errors in Flare Permit Conditions

1. Chevron Refinery Permit Condition 18656, Part 3 incorrectly refers to Condition 18656, Part 2 (“the procedure described in Part 2 of this condition”). It should instead refer to Part 4 of the condition.

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2. Martinez Refinery Permit Condition 18618, Part 14 incorrectly refers to Condition 18618, Part 2 (“the procedure described in Part 2 of this condition”). It should instead refer to Part 15 of the condition.

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3. ConocoPhillips Permit Condition 18255, Part 3 incorrectly refers to Condition 18656, Part 2 (“the procedure described in Part 2 of this condition”). It should instead refer to Part 4 of the condition.

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III. The Tesoro Refinery Permit is Missing Data

In Section IV, Condition 18372, Part 6 through 13 of the Tesoro Refinery Permit are missing minimum/maximum firing rates and minimum/maximum O₂ concentrations for the listed sources. In Section IV, Condition 19199, Parts D5, D5A, E5, and E5A are missing POC content limits for sources S975 and S982. Tables VII-Ta and VII-Tb are missing the POC content limits for the same sources. The District must insert the correct data for the firing rates, O₂ concentrations and POC content limits for the sources before the Tesoro Refinery Permit is finalized.

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IV. Conclusion

For the foregoing reasons, the 2004 draft Refinery Permits should not be finalized in their current form. Thank you for this opportunity to submit public comments. If you have any questions, please call Marcie Keever at 415-369-5351 or Ken Kloc at 415-369-5352.

Sincerely,

/s/

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Environmental Law and Justice Clinic
Attorneys for Our Children's Earth
and on behalf of Environment California and
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cc: Jack P. Broadbent, BAAQMD APCO
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