

VIA E-MAIL AND U.S. MAIL

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**Re: Comments on Draft Major Facility Review Permit for Chevron Richmond Refinery,
Facility No. A0110**

Dear Mssrs. Young and Solomon:

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.

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 Chevron’s Title V permit and associated documents. Even on this third go-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

¹ See CBE Comments to proposed Chevron 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 Chevron Richmond Refinery, September 27, 2002; Adams Broadwell comments on Bay Area Refinery Title V Permits, September 22, 2003.

did provide us, the Title V permit itself must be clear to avoid future disputes in interpreting permit conditions.

The disorganization of the proposed Title V permit, moreover, makes the document vulnerable to errors and out-of-date requirements. After years of permit development and three rounds of public review, it is past time that the District prioritize drafting a permit that is more accessible in form and less prone to error.

In previous drafts, CBE has detailed the lack of public participation in the Title V process concerning the amount of time allowed to comment – given the length and complexity of the proposed permits – the District’s failure to adequately respond to previous comments, and difficulty in obtaining the documents necessary to evaluate the completeness of the permits. CBE has also commented on the disparity in access to documents compared to refineries. The refineries have had actual control of permit sections² whereas the public does not even have the documents it needs to determine whether a permit change was legitimate. For example, the District had previously sent Chevron an electronic version of the draft title V permit with a message stating, “Attached is the single Microsoft Word document that contains your permit. Re-format and add index to make it more user-friendly. Don’t change the content yet.”³ In October 2003, the District apparently asked Chevron to draft the responses to EPA’s concerns about the permit. “In response to your request for assistance in responding to EPA questions Chevron has added responses to each of your questions below. I have taken each question that you asked and provided a response just below. Please let me know if you would like further information on any of these.”⁴ Chevron has had unlimited access to comment on various aspects of the permit, while the public comment period have been set for relatively short time periods.

The public is again getting short-changed. The District has signed a non-enforcement agreement with Chevron, releasing the corporation from its duty to comply with requirements of its current permit.⁵ Meanwhile, the District proposes to limit its responses to public concerns to address only changes made in the newest proposed permit.⁶ The District has admitted extensive errors in the proposed Title V permits, such as improperly changing existing permit conditions but will not change them.⁷ 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.

² See CBE comments to proposed Chevron Title V permit, September 27, 2002, page 2.

³ Email from Barry Young, BAAQMD to Alex Stiem, Chevron Environmental Engineer, dated January 17, 2002 (attached as Appendix 1).

⁴ Email from Kari Lorch, Chevron, to Barry Young and Greg Solomon, BAAQMD permit engineers, dated October 30, 2003 (attached as Appendix 2).

⁵ Compliance and Enforcement Agreement between Chevron U.S.A. Inc. and the Bay Area Air Quality Management District, entered March 17, 2004 (attached as Appendix 3).

⁶ Public Notice - Notice Inviting Public Comment, (that the Bay Area Air Quality Management District is reopening the Major Facility Review Permit for Chevron Products Company,) Dated: February 24, 2004.

⁷ See CBE Comments on draft Major Facility Review Permits, September 22, 2003, page 17; see also Response to Comments, August 2003, February 2004.

TANKS

The District has proceeded in a hodgepodge fashion that makes it impossible for the public to understand the actual magnitude of proposed changes to the operation of Chevron's storage tanks. The District may not change tank capacity, throughput, and operations for a dozen tanks based on a statement that says simply, "design drawing submitted," and cannot piecemeal permit changes to numerous tanks simultaneous with the Title V process, without the comprehensive, integrated review that the Title V permitting process is meant to enable.

Chevron's proposed Title V Permit substantially increases the capacity for twelve storage tanks, labeling these changes, "corrections."⁸ The District bases the capacity increases for eight of these tanks on newly submitted design drawings.⁹ The District is apparently misconstruing the Title V process to allow substantial capacity increases without first engaging in a formal permitting process. The tables in the permit and statement of basis present absolutely no information supporting the decision to increase tank capacity in the four remaining storage tanks.

The proposed Title V permit also fails to disclose that the District has processed a series of Chevron permits in a piecemeal fashion over the past several years. The District has allowed Chevron to systematically increase the capacities, throughput, and emissions associated with its storage tanks. For example, the District recently issued permit # 8451, authorizing a sevenfold increase in the throughput for tank S-1645. Neither this throughput increase nor the associated very high cancer risk cited in permit # 8451 are disclosed in Chevron's proposed Title V permit.

Since August 2003, when the District published Chevron's last proposed Title V permit, it has issued permits authorizing significant modifications to at least six other storage tanks at the Chevron refinery. Permit # 7825 was prompted by a 2003 notice of violation against Chevron for neglecting to obtain the required authority to construct permits for four tanks modified in 2000. These modifications substantially increased emissions and triggered BACT requirements for three tanks. After Chevron rejected three corrective options proposed by the District as not cost effective, the District issued a new permit that changed operating conditions and allowed use of one of two options acceptable to Chevron to control POC emissions while determining that BACT did not apply. Incredibly, even though this permitting transpired simultaneously with the Title V permitting process, permit # 7825 fails to disclose the threefold capacity increase for tank S-3213 that the District now seeks to sneak through based on a newly submitted design drawing.

In addition to tanks S-1645 and S-3213, the District has also recently authorized changes to tanks S-1635, S-3201, S-3214, S-3106 and S-3100. In permit # 7919, the District determined that increases in emissions triggered BACT, but required only BACT level 2 because Chevron insisted that add-on controls were not cost effective. In permit # 8452, a seventy percent

⁸ Chevron Statement of Basis, February 2004, page 8.

⁹ Specifically, Tables II A-1 and II A-2 of the draft permit states, "design drawings submitted 1/16/4."

throughput increase was allowed with increased emissions that triggered BACT requirements, with cost effectiveness used to justify only BACT level 2 controls.

In its submittal for tank S-3100, Chevron emphasized that its coterminous submittals for tanks S-1514, S-1645 and S-3101 were “all driven by the upcoming Title V Air Permit.” The Title V permit proposes to delete throughput reporting limits for tanks S-3101, S-1514 and S-3072 because they are grandfathered sources. The current status of the proposed permit changes for tanks S-3101 and S-1514, such as whether there were permits, and the details supporting the proposed removal of throughput limits for tanks S-3101, S-1514 and S-3072, is not apparent.

Since the last draft Title V permit, the District has doubled the throughput limit for Tank S-1966, the third tank listed.¹⁰ There are three problems with the District’s changes to this tank. First, while the Statement of Basis notes that the change is due to “better information,” the Statement of Basis fails to provide any actual basis.¹¹ The Statement of Basis must provide this information.

Secondly, the permit does not clearly indicate that the throughput limit is solely for monitoring purposes and does not indicate the actual limit that may pass through the refinery source.¹² But the throughput is only for monitoring. In an email from the District to Chevron, the District states:

By the way, *the highest six month data times two is merely a reporting requirement* and it should be noted that by the time the source is at the reporting requirement throughput level it will have exceeded the modification definition limit (highest 12 month throughput) and may be subject to enforcement action.¹³

The permit and Statement of Basis should clearly state that the throughput limit is a monitoring requirement and should not be considered to be a new limit for the tank.

Thirdly, the method that the District used to determine the annual throughput is improper. The District has taken the data from the highest six month period and multiplied it times two to get the annual value.¹⁴

Source Number	Description	Make or Type	Model	Capacity	Annual Throughput Limits	Daily Throughput Limits	Units	Basis
S-1966	Tank	External Floating Roof	N/A	1987K gal	365,000 767,646	N/A	bbl	Form T highest 6 months throughput x2

¹⁰ Chevron Proposed Title V Permit, February 2004, Table II A3, page 34.

¹¹ The only reference to Tank S-1966 in the Chevron Statement of Basis is on page 8.

¹² Chevron Proposed Title V Permit, February 2004, page 35.

¹³ Email from Gregory Solomon, BAAQMD permit engineer, to Robert J Moran, Chevron, dated January 22, 2004, (emphasis added) (attached as Appendix 4).

¹⁴ *Id.*; Chevron Proposed Title V Permit, February 2004, page 35.

The District has magnified the historically highest year, inaccurately, so that it appears larger, rather than picking an actual highest yearly value for throughput. This method of determining the throughput limit is not accurate and has no basis in the District's rules.

In the past, CBE has expressed many concerns and submitted extensive comments to the District about allowing inflated baselines and permit limits – based on Chevron's selecting uncharacteristic or even non-existent levels for baselines or permit limits – that allow large increases, without re-opening permit processes. We object to this practice.

Recommended Action:

1. *Replace the storage tank capacity in eight of the storage tanks with the original capacity.*
2. *Update the SOB to include information relevant to making permitting decisions, as cited in the original permit #8451, such as significant health risks involved in the project.*
3. *Provide details in the SOB supporting the proposed removal of throughput limits for tanks S-3103, S-1514, and S-3072; and explain the current status of the proposed permit changes for Tanks S-3101 and S-1514 (such as whether these changes were based on permit applications).*
4. *Replace the throughput limit in Tank S-1966 with the original limit since there appears to be no basis. Or explain in the SOB the basis for doubling that tank's throughput limit.*
5. *Recalculate the annual throughput for Tank S-1966.*

COOLING TOWERS

The proposed permit fails to include sufficient compliance monitoring for the RLOP cooling tower. The table on page 121 indicates that rule 8-2 applies to the cooling towers. However, the chart on pp. 420-421 contains no compliance monitoring for rule 8-2. In addition, there appears to be no POC monitoring for most of the cooling towers. This monitoring must be included in the permit.

In Table II A 1 of the proposed permit, for the cooling towers there are references to Appendix II. However, Appendix II is not in the proposed permit. The proposed permit refers the reader to nonexistent information. This is inappropriate, because the proposed permit fails to provide useful information with respect to the cooling towers.

Recommended Action:

1. *Include POC monitoring in the permit to ensure compliance with rule 8-2 and other limits.*
2. *Include Appendix II in the Title V permit because the Title V permit references that appendix.*

FLARES

The District has made extensive changes to the flare sections of Chevron's Title V permit. The District improperly deleted federally enforceable provisions, and included outdated emissions calculations methodologies and refinery baseline credits.

The Title V Permit Improperly Omits or Deletes Federally Enforceable Provisions

This latest Title V draft permit departs significantly from the previous one in applying federal requirements. In the last permit, Chevron's LSFO flare, South Isomax Flare, North Isomax Flare, LSFO Elevated Flare, FCC Flare, Alkane Flare, SRU, and the Alky Flare were subject to federally enforceable NSPS Subpart J.¹⁵ Now, the District has concluded that NSPS rules apply only to Chevron flares S-6015 and S-6039, using two faulty rationales. First, flares S-6015 and S-6039 are purportedly the only two flares constructed after 1973. Secondly, the flares are constructed such that flaring can only occur as a result of emergencies and upset conditions.

THE FLARES ARE MODIFIED SOURCES

CBE disagrees with the District's reasoning and conclusion. NSPS applies to sources that have been constructed *or modified* after 1973.¹⁶ Chevron has performed extensive modifications to the refinery and has included flares in numerous applications for modification since 1973, the District construes modifications too narrowly, and the District fails to include information that would allow it to know if certain modifications had occurred.

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.¹⁷

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.

¹⁵ The Flares were subject to 40 CFR §§ 104, 104(a)(1), 105, 105(a)(4), and 105(e)(3),

¹⁶ See 40 CFR § 60.100(b).

¹⁷ 40 CFR § 60.2.

But according to the District, a modification occurs only when the flare burner tip is replaced.¹⁸ 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.¹⁹

In designing a flare, important considerations, among others, include reliable burning, hydraulics, liquid removal, air infiltration, and flame radiation.²⁰ 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.²¹ The District's position is untenable.

Moreover, the District did not indicate whether the flare burner tips had been replaced. The District must either indicate in the Statement of Basis that none of the flare burner tips has been replaced or inspect the flares for these modifications. The District should also include a condition in the Title V permit that the refineries notify the District when flares tips are replaced and/or when the refinery makes any other flare modification.²²

THE DISTRICT EXEMPTED FLARES INSTEAD OF EMERGENCY FLARING

The permit also exempts Chevron's flares from NSPS Subpart J – Subpart J effectively limits the release of SO_x to the atmosphere by limiting H₂S gas combustion within the flare. First, instead of exempting *flaring* resulting from upset conditions, the District exempts the *flares*, themselves, from the regulation. 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." 40 C.F.R. § 104(a)(1). Thus, the District cannot justify exempting the flares from this rule.

The District further suggests that both of Chevron's flares are incapable of discharging gases that do not result from emergency breakdowns.²³ The District provides no basis for this assumption. The District itself has identified, in its BAAQMD flare Technical Assessment Document and

¹⁸ Chevron Statement of Basis, February 2004, page 18.

¹⁹ EPA's AP 42 Emissions Factors Industrial Flares, 13.5.1. (attached as Appendix 5).

²⁰ Flare System Design – What is Important? John Zink Company, 1998 (attached as Appendix 6)

²¹ *Id.* at 4-8.

²² Chevron must notify the District if it is going to make a modification to the flare, which, according to the District, includes changing the flare burner tip. *See* 40 CFR 270.42(a)(b).

²³ Chevron Statement of Basis, February 2004, page 18.

during flaring workshops, including one held on March, 24 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.²⁴

The flaring data that Chevron 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.

CHEVRON'S FLARES ARE SUBJECT TO NSPS SUBPART A

The District also continues to omit the generally applicable federal NSPS requirements, such as 40 CFR § 60.11.

Unlike 40 CFR § 40.104(a), 40 CFR § 60.11 applies even when process upset gases are legitimately exempted under NSPS Subpart J. The regulation 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

Chevron has had a practice of flaring almost constantly, with no federal or local regulations in place to limit flare emissions of any kind according to this Title V permit. This is clear by randomly choosing a sample from last year. Chevron flared six days in December 2002 due to planned maintenance. Two different flares were active 12 days each in January 2003. For several days, there was a bad motor bearing, and shutdowns for maintenance. The flare ran for eight days in February 2003 due to shutdowns for maintenance and PLC card failure, FCC upset, high relief system flow, runaway head leak, and depressurizing due to flange leak. In March 2003, the flares roared for five days for shutdowns due to electrical problems, to replace a leaking PSV, and for shutdowns from E-140 plugging. While some of this flaring could have resulted from true emergencies, the data illustrates a lot of flaring events. Why an air District

²⁴ 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 5). *See also*, EPA Enforcement Alert, Vol. 3 No. 9, October 2000.

would not include this rule for refinery flares a mystery. Nevertheless, the regulation must be included in the permit, because Title V permits must include all applicable requirements.²⁵

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.

THE MISCELLANEOUS OPERATIONS RULE APPLIES

As discussed in previous comments, CBE maintains that the Miscellaneous Operations rule applies to the flares. The permit does not apply the miscellaneous operations rule to flares. Consequently, the flares are not subject to any District rule that limits flare emissions. The District has not demonstrated that the flares function at a ninety percent efficiency rate.²⁶

Recommended Action:

1. *Ascertain whether Chevron has modified flares constructed post-1973 and provide the basis for this determination.*
2. *Indicate in the Statement of Basis that none of the flare burner tips has been replaced or inspect the flares for these modifications.*
3. *Include a condition in the Title V permit requiring the refineries to notify the District when flare tips are replaced and/or when the refinery makes any other flare modifications.*
4. *Describe what refinery source each flare is attached to in order to determine whether certain NSPS provisions apply.*
5. *Include Subpart J, 40 CFR § 60.104 as an applicable requirement for all new and modified Chevron flares because the flares are not exempt from this rule.*
6. *Add 40 CFR § 60.11 as an applicable requirement to all the flares to which NSPS applies, even to those legitimately exempted from NSPS Subpart J provisions.*
7. *Include 40 CFR § 60.8 to the NSPS applicable flares to ensure compliance with 6-301, or the basis for exempting all of the flares from this rule.*
8. *Include the miscellaneous operations rule, 8-2-301, as an applicable Title V permit requirement.*

²⁵ The rule 60 CFR § 60.11 appears generally as a “refinery wide applicable requirement” but does not indicate to what sources the NSPS requirement applies. See Chevron Proposed Title V permit, February 2004, page 129.

²⁶ See CBE Comments on draft Major Facility Review Permits, September 22, 2003, page 17.

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

The permit appears to set flare emissions “limits.”²⁷ Neither the permit nor the Statement of Basis provide a rationale for these numbers and the intent is unclear. These limits describe permissible flaring emissions in pounds per hour.

“Conditions for monitoring for correctly designed and operating flares:

1. The owner/operator shall not flare more than the following limits of vent gas, as defined in Regulation 12-11-210, at the following sources:

S-6012	381,040 #/hr
S-6013	1,357,512 #/hr
S-6015	878,900 #/hr
S-6017	3497 #/hr
S-6039	710,390 #/hr
S-6016	1,440,800 #/hr
S-6019	783,300 #/hr
S-6010	878,900 #/hr. (basis: Regulation 8-1-110.3; 2-1-403) ²⁸

These numbers imply that emissions limits have been set for each of these flares, but there is no basis for them and 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 the following limits 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.

In previous comments on Chevron’s Title V permit, we noted ambiguities between throughput for flares listed in the original individual permits, and higher throughput values listed in the Title V permit for the very same flares (which are inappropriate). However, those throughput numbers were in BTU units (British Thermal Units, a measure of energy), not pounds (a measure of mass). The numbers in the newly proposed Title V permit using pounds, excerpted above, have apparently been converted without providing a basis for the conversion. In order to convert from BTUs to pounds, one must make assumptions about which VOCs and other chemicals are present in the flare, and in what concentrations they are present. These affect the overall BTU content. It is not appropriate to set such lbs/hr limits. Moreover, there is no basis for them. Even if these limits are meant to regulate gases within the flare, some portion of which are destroyed in the flame, they still result in significantly high emissions. Even assuming the rated VOC destruction efficiency of 98% VOC (a destruction efficiency that CBE has demonstrated

²⁷ Chevron Proposed Title V Permit, February 2004, Condition 18656, pages 372-374.

²⁸ Chevron Proposed Title V Permit, February 2004, page 374.

goes much lower) the calculations below show that lbs/hr and tons/day emissions would be enormous:

Source Number	#/hr figure provided in Title V permit excerpt, if interpreted as pounds within the flare	Emissions out of the flare, #/hr if 98% of column 2 were destroyed by flare	Column three converted to emissions out in tons per day
S6012	381,040	7,621	91
S6013	1,357,512	27,150	326
S6015	878,900	17,578	211
S6017	3,497	70	1
S6039	710,390	14,208	170
S6016	1,440,800	28,816	346
S6019	783,300	15,666	188
S6010	878,900	17,578	211

Whether presented in lbs/hr per day, or tons per day, this permit would allow significant emissions. Moreover, these numbers have no apparent basis, conflict with other District requirements, and also may conflict with statements made by Chevron and WSPA in Air District technical working group meetings on flares. Chevron has stated that its daily flare emissions are in the fractions of tons per day. Finally, as the calculations above demonstrate, the permit allows emissions to the atmosphere that are far higher than Chevron has claimed to be emitting, even using assumptions favorable to Chevron.²⁹

Recommended Action:

1. Clarify in the permit and SOB that condition 18656 does not set actual emissions limits for flares or describe the basis for setting such limits.
2. Resolve the ambiguities in condition 18656 by clarifying whether the “vent gas” limit refers to the amount of gases inside the flare or the amount emitted to the air and by providing the basis for the throughput value conversions from pounds to BTUs.

The Title V Permit’s Flare Emissions Calculations Methodologies Are Severely Outdated

²⁹ In addition to this flare portion of the condition, there are multiple other parts. We found no discussion of this entire section in the Statement of Basis, or any discussion on whether these were meant to provide requirements which are *additional* to other sections of the Title V permit. The basis for this entire section must be provided to the public before being added. We have also made comments elsewhere concerning certain issues identified in this condition (such as applicability of NSPS, and other issues).

The proposed permit still contains confusing and incorrect flare emission calculations. The permit bounces the user back and forth between sections, includes internal contradictions, and contradicts facts identified in other District processes as follows:

Permit Calculations Methodologies Are Confusing and Inconsistent

The proposed permit confusingly and unnecessarily bounces the reader back and forth between sections. Appendix B outlines the methods to calculate future emissions for compressors, boilers, furnaces, blanketing and flares.³⁰ That appendix refers the reader to Appendix I for the emissions factors used to be applied to the Appendix B methodology. But rather than limiting reference to Appendix I in Appendix B, the permit requires one to go to Appendix I to learn that Appendix B should be used for actual values when monitors are available. Instead of bouncing the reader back and forth, Appendix B should be complete and limit its references to Appendix I.

The monitoring described in Appendix B and Appendix I are outdated and should be deleted. The permit's monitoring section includes new monitoring requirements for flares. Even though Appendix B states that its methods are the ones that should be used to calculate emissions from flares, the permit's monitoring section references neither Appendix B nor Appendix I. In fact, the monitoring methods in the body of the permit entirely contradict the methods described in the appendices. Consequently, the District should remove the methods described in Appendix B and Appendix I.

To further confuse matters, the Test Methods section of the proposed permit refers to an entirely different "Appendix B". It apparently refers not to Appendix B of the Title V permit, but to an Appendix B of the federal regulations!³¹ The District should more clearly cite this reference.

The District used a unit of measurement, "EFOB," as part of a calculation method without defining it.³² We had to speak with two different engineers, one of whom contacted other District engineers, before they were able to find a District staff person who knew what the term meant – Equivalent Fuel Oil Barrels. Apparently the unit came from an old permit condition, thus, no one could readily recall its meaning. EFOB evidently provides a standard BTU value for Fuel Oil, since Fuel Oil is a mix of compounds that varies and has a range of BTU content and other varying characteristics. Since there are new monitoring methods for determining flare emissions already described within the body of the Title V permit, the use of "EFOB" further obfuscates the comparison of calculation methodologies identified within the permit. It is essential that flare calculation methods be very clear. The District should define this term in the permit, describe the method that will be used, and ensure that the method is consistent with the flare monitoring regulations.

³⁰ Chevron Proposed Title V Permit, February 2004, page 280

³¹ When using a "Search" command in the Title V permit document to find which sections required the methods identified in Appendix B, I found only Table VIII – Test Methods, page 470, which simply lists "NSPS 40 CFR 60 Appendix B."

³² This term is not defined in the permit Glossary. Reference to the term appears in the Chevron Proposed Title V Permit, February 2004, Appendix B, pages 272, 284-86, 288.

The District Must Include Flare Pilot, Purge Gas and Combustion Emissions in its Flare Emission Calculations

Surprisingly, the permit reflects, in Appendix I, that flare pilot emissions constitute the entire calculation for flare emissions. The permit omits calculations for flare purge gas and combustion emissions. Mr. Solomon confirmed in a telephone conversation with Ms. May that for the purposes of permitting, the District had only calculated flare pilot emissions in the past, and that these constituted the entire calculation for flare emissions.³³

The information in Appendix I was inappropriately preserved in the new permit and should be changed. The District has stated in other forums that flare emission calculations should include not only flare pilot flame emissions, but also flare purge gas emissions and combustion emissions from the volumes of gases routed from refinery process units to the flares, which can dwarf flare pilot emissions. That conclusion is supported. The District's flare "Further Study" found that emissions from flares are orders of magnitude higher than the emissions estimates that were originally made using only the flare pilot. Even the Western States Petroleum Association (WSPA) has found flare emissions an order of magnitude higher than those originally made when estimated using the flare pilot alone. WSPA uses lower numbers than the District for overall flare emissions.

In the past, the District has estimated overall flare emissions (that were reportedly calculated using the flare pilot, according to discussion during the District further study on flares) at 0.1 tons per day. The Draft District Technical Assessment Document on flares found 22 tons per day of organics on the average, and a maximum up to 134 tons per day at one refinery. The Western States Petroleum Association found 2.3 tons per day average (excluding methane), which is still far higher than the flare pilot emissions alone.³⁴

These facts support the conclusion that sole use of flare pilot calculations to establish flare emissions in Appendix I is an outdated historical artifact inappropriately preserved in the new permit. The permit must be updated to include calculations not only for the flare pilot flame but for flare purge gas and combustion emissions.

Deciphering what part of the permit would apply to Chevron has taken on a keystone cops aspect. If this permitting process did not have such serious consequences, the severe lack of clarity, contradictions with facts identified in other District regulatory processes, and inaccurate calculation methodologies would seem almost humorous. The problems are so severe as to make the public review process almost impossible. The District must correct these errors and inconsistencies.

³³ Telephone Conversation between Julia May and Greg Solomon, March 24, 2004.

³⁴ CBE incorporates by reference all of the data preserved within the District Further Study Working Group processes on the sources of flare emissions.

Recommended Action:

1. *Limit Appendix B (outlining methods to calculate future emissions) references to Appendix I to avoid double cross-references.*
2. *Delete monitoring methods described in Appendices B and I because they are outdated and contradict the methods described in the body of the permit.*
3. *Correct the references in the Test Methods section of the permit.*
4. *Define the term “EFOB” in the permit, describe the method that should be used, and ensure that the calculation method is consistent with those described in the flare monitoring regulations.*
5. *Update the permit to include flare purge gas and combustion emissions in the flare emission calculations.*

The Permit Includes Outdated Refinery Baseline Credits for Flare Gas Recovery System

Appendix B of Chevron’s permit includes a statement that in a future study, the District will determine how many emissions credits to add to the refinery baseline emissions. But these credits have already been included in the refinery baseline emissions. Appendix B states:

“NOTE: Isomax Flare Gas Recovery: Emissions reduction from the Isomax Flare Gas Recovery System will be determined in a future study. The resulting credits may be added to the Refinery baseline emissions.”

This “note” is another relic from the past. The credits were apparently included in the refinery baseline emissions long ago, according to a permit engineer.³⁵ Refinery baseline emissions credits are a key matter of public interest. Please clarify this portion of the permit.

The District Must Include All Applicable Flare Requirements

The District states that it is unnecessary to include 12-11-503 as an applicable requirement in the Title V permit because such a condition “would be redundant.” But a Title V permit should include all of the rules that are applicable to a refinery. Thus, the District is required to include rule 12-11-503.

Recommended Action:

1. *Delete the portion of Appendix B that refers to a future study to determine emission credits for the Isomax Flare Gas Recovery System.*

³⁵ Telephone Conversation between Julia May and Greg Solomon, March 24, 2004.

2. *Include Rule 2-11-503 as an applicable requirement in the Title V permit because a Title V permit should include all applicable requirements and the District has not demonstrated that any exceptions apply.*

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 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,

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