

## District Response to EPA Comments on Draft Revision 3 Permits

### 1. FCCU Mass Emission and Feed Rate Limits

*Chevron*

**Comment:** “In EPA’s March 15, 2005 petition order regarding the title V permit for Chevron, EPA directed the District to either (i) amend the Statement of Basis to explain why BACT is the basis for the limits, (ii) revise the permit to provide an acceptable basis for the limits, (iii) revise the limits to more accurately reflect BACT, or (iv) remove the limits from the permit. See *In the Matter of Chevron Products Company*, Petition Number IX-2004-08, at 11-13.

“EPA does not believe the District has adequately responded to the order regarding the basis for the feed rate and mass emission limits. First, it appears that the District has not proposed to explain, revise, or remove the feed rate limits in Condition 11066 part 1, which was included in EPA’s objection. Second, it is not apparent why the new proposed basis for the mass emission limits is appropriate. As EPA noted in the petition order, the actual basis for the feed rate and mass emission limits appears to be the now defunct District Rule 2-2-113, which provided an exemption from the NSR requirement to obtain offsets. Thus, it remains unclear how “offsets” could be the basis for limits that appear to have been set to avoid obtaining offsets.

The District should (i) address the feed rate limits in Condition 11066 part 1, thoroughly explaining any decision, and (ii) either explain why “offsets” is the appropriate basis for the mass emission limits, provide another acceptable basis for these limits, or remove these limits from the permit.”

**Response:** (i) The applicable requirements (the feed rate limits in Condition 11066 part 1) were imposed in a District permit action pursuant to the District’s New Source Review rule (Application 11066, issued 8/1/92). This applicable requirement is accurately implemented in the Title V permit. The original permit condition is the origin of and authority for the term in the Title V permit.

EPA’s request for additional information about this condition appears to be focused not on whether the existing applicable requirement is accurately codified in the permit, but rather on whether an NSR permit issued in 1992 was correct. The District gives substantial weight to EPA comments on NSR determinations when those comments are timely made. However, the incorporation of NSR permit conditions into a Title V permit is not an opportunity to reopen a determination made 15 years earlier. A copy of the engineering evaluation for the permit action that established this applicable requirement is attached to this letter.

(ii) During preparation of the initial Title V permits, the District took the opportunity to review its existing permit conditions. A basis code was added to each part of each permit condition. This basis code provides some information about the underlying regulation or body of regulations that the condition is intended to implement. A given permit condition may help implement several regulations. This code is not a substantive part of the condition, and has no aspect of enforceability; it is explanatory. The original permit condition is the origin of and authority for the term in the Title V permit.

The District uses the code “offsets” to denote a permit condition that is imposed in order to ensure that the assumptions made to calculate emissions during permit review remain valid. In this case, the permit condition was imposed, in part, to ensure that emissions did not increase, so that offsets would not be required for the project.

## **2. Periodic Monitoring for Asphalt Operations**

*Chevron*

**Comment:** “In EPA’s March 15, 2005 petition order regarding the title V permit for Chevron, EPA directed BAAQMD to include additional analysis in the Statement of Basis supporting its decision to not impose periodic monitoring for Regulation 6-310 for asphalt operations. See *In the Matter of Chevron Products Company*, Petition Number IX-2004-08, at 21.

“In the Statement of Basis for the draft Chevron permit, BAAQMD states that the correct basis for its determination that periodic monitoring is not necessary to assure compliance with Regulation 6-310 is that “the control technology being used (mist eliminators) is expected to keep emissions below the standard with a wide margin of compliance.” See Revision 3.0 Statement of Basis for Chevron at 7.

“We believe it would be appropriate to provide calculations demonstrating the ability of the mist eliminators to keep emissions below the limits required by Regulation 6-310.”

**Response:** The district conducted a source test (ST-15) on A-37 and the average of the three runs was 0.021 gr/dscf, which is significantly less than 0.15 gr/dscf. Based on this source test result the district believes that no additional monitoring is warranted.

## **3. Federal Enforceability of Regulation 8-28-304**

*Chevron*

**Comment:** “In EPA’s March 15, 2005 petition order regarding the title V permit for Chevron, EPA directed BAAQMD to correct the federal enforceability designation for the version of Regulation 8-28-304 recently adopted into the State Implementation Plan (SIP). See *In the Matter of Chevron Products Company*, Petition Number IX-2004-08, at 28.

“In the Statement of Basis, BAAQMD states: “A correction...is proposed to show that Regulation 8-28-304 is federally enforceable.” However, both the “Y” and “N” in table IV.H.2.1 appear as text with strikethrough, indicating that both notations will be deleted in the final permit. BAAQMD should correct this mistake.”

**Response:** The District intended to indicate that 8-28-304 is federally enforceable. That typographical error will be corrected in the proposed permit.

## **4. NSPS Subpart J - Flares**

*Chevron and Valero*

**Comment:** “In EPA’s March 15, 2005 petition orders regarding the title V permits for Chevron and Valero, EPA directed BAAQMD to reopen the permits for Chevron and Valero to either include monitoring under section 60.105(a)(3) or (4), or to include other monitoring to assure compliance with NSPS Subpart J, for example, by including federally enforceable monitoring to show compliance with an existing permit condition prohibiting the use of flares for routine purposes. See In the Matter of Chevron Products Company, Petition Number IX-2004-08, at 30-31 and In the Matter of Valero Refining Co., Petition Number IX-2005-07, at 29-30.

“Additionally, on March 15, 2005, EPA issued a memorandum entitled “Conditions in Title V Permits to Verify Compliance with NSPS, Subpart J” intended to provide national guidance to permitting authorities on the monitoring required by NSPS Subpart J for flares at refineries. That memorandum created some confusion within the regulated community and was withdrawn on May 16, 2005.

“Withdrawal of the memo issued on March 15, 2005 does not represent a change in EPA’s position regarding monitoring required for affected flares at Chevron and Valero. BAAQMD’s revised draft permits continue to lack the monitoring required by NSPS Subpart J. The BAAQMD needs to address this issue and should work with EPA to ensure that the permits for Chevron and Valero include adequate monitoring for flares subject to NSPS Subpart J in compliance with EPA's orders.”

**Response:** The District intends to continue to work with EPA to address this issue.

It should be noted that the District has determined, based on available evidence, that the sources in question are not subject to 40 CFR 60.105(a)(3) or (4). Specifically, because there are no known incidents of flaring other than to combust process upset gases or gases released due to malfunction, the flares have been exempt per section 104(a)(1). Contrary to what the withdrawn March 15, 2005, guidance implied, Title V does not provide authority to establish monitoring for requirements that are not applicable. The above comment from EPA either additionally or alternatively asserts that the H<sub>2</sub>S standard of Subpart J is in fact applicable, presumably on the theory that it applies to flares physically configured to burn routine gases whether they do so or not. To the District’s knowledge, all refinery flares are physically configured such that they are capable of burning routine gases, and were so configured when Subpart J was promulgated in the early 1970’s. The District has assumed that if EPA’s interpretation of Subpart J had been that the mere physical configuration of a flare allowing it to burn routine gases renders it subject to Subpart J, there would be a historical record of such applicability determinations. Regardless of past practice, if EPA takes this position now, the District will work with EPA to bring about compliance with Subpart J, including monitoring required by the regulation, at flares that were historically considered exempt.

As EPA is aware, the District has adopted two local rules that specifically address the emissions from refinery flares. Regulation 12: Miscellaneous Standards of Performance, Rule 11: Flare Monitoring at Petroleum Refineries, was adopted on June 4, 2003, and requires monitoring, recordkeeping and reporting of flare emissions. Regulation 12: Miscellaneous Standards of Performance, Rule 12: Flares at Petroleum Refineries, was adopted on July 20, 2005, and requires the use of all feasible prevention measures to minimize the frequency and magnitude of flaring. Regulation 12, Rule 12 also has the

requirement to report the results of an investigation to determine primary cause and contributing factors for flaring events (i.e., causal analysis). The requirements for detailed monitoring, recordkeeping, reporting, and causal analysis of flaring events provides the District, EPA, and the public with the useful information to verify whether flaring events qualify for the exemption from Subpart J.

## 5. Regulation 8-2 – Flares

### *Chevron and ConocoPhillips*

**Comment:** “In EPA’s March 15, 2005 petition orders regarding the title V permits for Chevron and ConocoPhillips, EPA ordered the District to conduct a flare design review and reopen the permits to either include the results in the Statement of Basis or, if needed, to include the requirements of Regulation 8-2 in the permit. It also ordered the District to include federally enforceable monitoring for the requirements of Conditions 18255 (ConocoPhillips) and 18656 (Chevron).

“The District must conduct a design review and adding federally enforceable monitoring to Conditions 18656 and 18255 (or otherwise demonstrating that the flares will achieve the 90% control efficiency), unless BAAQMD can adequately demonstrate that Regulation 8-2 was not intended to apply to refinery flares. In the long term, an alternate approach might be for BAAQMD to submit the recent revisions to Regulation 8-2 to EPA for approval into the SIP.”

**Response:** The District will not revise the proposed permit to include the requested monitoring because Regulation 8-2 is not applicable to refinery flares. The basis for that applicability determination is contained in the District’s statement of basis for the proposed permit and is briefly summarized below. Because 8-2 does not apply to flares, the District has no authority under state or federal law to impose monitoring for compliance with this rule; therefore, the District will delete those provisions of Condition 18255 (ConocoPhillips) and Condition 18656 (Chevron) erroneously proposed in response to EPA March 15, 2005 petition order and will not compound the error by adding additional related monitoring requirements as suggested in this comment.

The District does intend to submit the recent revisions to Regulation 8-2 to EPA for approval into the SIP. It is the District’s position that, with regard to the applicability of 8-2 to flares, the revised regulation does not constitute a substantive change to the regulation, but instead clarifies the existing requirement. The clarification is consistent with the District’s longstanding interpretation and application of this rule. We believe EPA is bound by the District’s purpose and intention in adopting the rule, and that the rule as incorporated in the SIP must be implemented consistent with that purpose and intention.

Additionally, the District does not feel that the alternative method of demonstrating the non-applicability of 8-2 (performing a design review to demonstrate that the exemption in 8-1-110.3 applies) would be a good use of resources, for the following reasons:

1. Regulation 8-2 already does not apply to flares.
2. Even if it applied, 8-2 is not enforceable for flares (because the method of determining compliance in 8-2-601 cannot be utilized for flares)

3. The role that 8-2 plays in the District's regulatory scheme (to provide a driving force for adoption of category-specific rules) is moot for flares, because the District has adopted rules specific to flares.

## **6. Streamlining Determination for Recordkeeping Requirements for Tanks** *Chevron*

**Comment:** "In EPA's March 15, 2005 petition order regarding the title V permit for Chevron, EPA directed BAAQMD to provide a more specific reference for the MACT requirement into which SIP tank recordkeeping requirements were subsumed in permit shield tables IX-B-1, -B-2, and -B-3 for tanks. *See In the Matter of Chevron Products Company*, Petition Number IX-2004-08, at 42.

"BAAQMD is proposing to revise these permit shield tables by citing specifically to the recordkeeping requirements of 40 CFR §63.654. However, given that 40 CFR §63.654 contains dozens of recordkeeping requirements, a broad citation to 40 CFR §63.654 is inadequate. Additionally, it does not appear that 40 CFR §63.654 and the subsumed SIP rules require the same type of records to be kept.

"BAAQMD must provide a streamlining analysis that demonstrates which specific subsections of 40 CFR §63.654 contain the subsumed SIP recordkeeping requirements. If the District is not able to make an adequate streamlining demonstration, the permit shields should be removed from Chevron's title V permit."

**Response:** The requested streamlining analysis has been added to the Statement of Basis for the proposed permit.

## **7. Periodic Monitoring Determinations for FCCU Catalyst Hoppers** *Tesoro*

**Comment:** "BAAQMD has proposed to add monthly visible emissions monitoring to assure compliance with regulations 6-301 and 6-31 for the FCCU catalyst hoppers.

"BAAQMD should explain how compliance with Regulation 6-310 will be assured by monitoring visible emissions. Additionally, while tables IV-D and VII-D indicate that monitoring will be required for these sources, table VII-C indicates that no monitoring will be required. BAAQMD should correct this discrepancy."

**Response:** Monitoring is being added to comply with 2-6-509.2.2, which corresponds to 40 C.F.R. §70.6(a)(3)(i)(B). The specific requirement to be met is not that monitoring "assure compliance," but rather that it be sufficient to "yield reliable data from the relevant time periods that is representative of the source's compliance with the permit." The catalyst fines hoppers are abated by both a cyclone and baghouse. In EPA's June 24, 1999 agreement with CAPCOA and ARB, "Periodic Monitoring Recommendations for Generally Applicable Requirements in SIP", for both opacity limits and grain loading from baghouses, the recommended monitoring is based on the amount of potential uncontrolled particulate matter emissions. For uncontrolled emissions between 300 and 1,300 tpy, the recommended monitoring frequency is once a month. In the Title V permit for Tesoro, the annual grandfathered throughput limits of S97, S98, and S99 are 14,600

tpy, 5,475 tpy, and 9,125 tpy, respectively. Uncontrolled emissions from the catalyst hoppers are only a small fraction of the total throughputs. At these throughputs the emissions of uncontrolled particulate are expected to be well below 1,300 tpy. Monthly visible emissions monitoring shall ensure that the baghouse is in good operating condition and that emissions meet the limit in Regulation 6-310. The EPA, CAPCOA and ARB agreement also requires that the baghouse be inspected annually. This requirement will be added to Condition #19528 as part 13A.

The monitoring requirements for Regulations 6-301 and 6-310 will be added to Table VII – C for S97 and S98. Table VII – C was originally overlooked in the original proposed version of Revision 3.0 (July, 2005) and S97 and S98 were added to Table VII – D for S99. Because Table VII – C will be corrected and Regulations 6-301 and 6-310 will be added, S97 and S98 will be deleted from Table VII - D.

In Condition #19528, part 13 and in Table II – D, the future effective date of 4/11/04 has passed and will be removed.

## **8. Periodic Monitoring Determinations for Cooling Towers**

### *Tesoro*

**Comment:** “EPA’s March 15, 2005 petition orders regarding the title V permits for Tesoro and Valero directed BAAQMD to include periodic monitoring that yields reliable data representative of the refineries’ compliance with Regulation 6-311. *See In the Matter of Tesoro Refining and Marketing Co.*, Petition Number IX-2004-06, at 35, and *In the Matter of Valero Refining Co.*, Petition Number IX-2005-07, at 36.

“The Statement of Basis for the current revision, the District recalculated the emissions using a procedure outlined in AP-42 and found that the estimated emissions are not above the 50% threshold for any of the cooling towers. As a result, the District is not proposing any monitoring at this time. However, the District’s current draft Statement of Basis does not explain the basis for its use of the specific TDS concentration values and why they yield conservative estimates of the emissions.

“A review of historical TDS data for each cooling tower could be helpful in this regard. EPA notes that the District did review TDS data from a two year period for the Valero cooling tower but the same review was apparently not conducted for the 13 Tesoro cooling towers. The District should conduct a similar analysis for Tesoro. Due to the variability of TDS concentrations over time, EPA also suggests that the District review data from a longer period of time to better understand the degree of variability at both facilities.”

**Response:** The TDS concentrations used in the PM10 calculations were provided by Tesoro. They are the average TDS concentrations in the circulating water at the cooling towers. AP-42 outlines a procedure to calculate a conservative PM10 emission factor, which is excerpted below.

“A conservatively high PM10 emission factor can be obtained by (a) multiplying the total liquid drift factor by the total dissolved solids (TDS) fraction in the

circulating water and (b) assuming that, once the water evaporates, all remaining solid particles are within the PM10 size range.”

An even more conservative PM10 emission may be calculated by using the highest TDS concentration obtained versus the average TDS concentration. For S975, the highest TDS concentration obtained since 2002 was 2485 ppm (46% greater than average). For S983, the highest TDS concentration obtained was 3084 ppm (46% greater than average). When Tesoro sees the conductivity and therefore TDS concentration increasing in the circulating water, more makeup or fresh water is added and the concentrated blowdown is increased. This procedure prevents TDS concentrations from large variations and increases. Historical data has shown that TDS concentrations have never increased by 100%. Good operating procedures will prevent TDS concentrations from ever approaching a 100% increase from the average. For this demonstration, to obtain the most conservative PM10 emissions from the cooling towers, the average measured TDS concentrations have been DOUBLED The table below demonstrates that emissions will be well below the limit of 40 lb/hr and periodic monitoring to assure compliance with Regulation 6-311 is not justified.

Source	Cooling Tower Description	Circulation (gpm)	Drift (lb/hr)	TDS (ppm)	PM10 (lb/hr)
846	3 HDS	12,125	1214	1,625	1.97
975	4 Gas Plant	69,000	6,906	3,396	23.45
976	5 Gas Plant	75,000	7,506	775	5.82
977	3 Crude	22,000	2,202	1,625	3.58
978	FWS	4,100	410	1,566	0.64
979	2 Feed Prep	15,000	1502	3,275	4.92
980	Isocracker	12,000	1201	1,425	1.71
981	1 HDS	14,000	1,401	1525	2.14
982	2 HDS	18,000	1,801	4200	7.56
983	Alky/2 Ref	34,900	3,493	1500	5.24
985	1 Gas/MTBE	16,000	1,601	1525	2.44
987	50 Crude	15,000	1,501	925	1.39
988	3 Reformer	10,000	1,001	1650	1.65

The District has also revised the Statement of Basis to clarify that water flow rate is the process weight basis for determining allowable emissions for a cooling tower subject to Regulation 6-311.