

Bay Area Air Quality Management District

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**Proposed
Permit Evaluation
and
Statement of Basis
for
MAJOR FACILITY REVIEW PERMIT
Reopening – Revision 1.5**

**for
Chevron Products Company
Facility #A0010**

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January 2005

Application 11695

Reopening of Title V permit for Chevron

Statement of Basis

On October 8, 2004, EPA Region IX determined that cause exists to reopen the Title V permit for Chevron. The two issues identified by EPA are compliance monitoring for enclosed combustion devices, and federal enforceability of certain ConocoPhillips permit conditions originally established in NSR permits. The purpose of this reopening is to address these issues. The District responded to EPA regarding these two issues in a January 6, 2005, letter, the contents of which is referred to herein and which also forms a part of the basis for this reopening.

Compliance Monitoring for Enclosed Combustion Devices

EPA's October 8, 2004 finding of cause to reopen states that the Bay Area Title V permits lack periodic monitoring for the following requirements: 40 CFR 60.482-10(c), 60.692-5(a), and 61.242-11(c). These standards require that enclosed combustion devices be designed and operated to reduce VOC emissions by 95% or to provide a minimum residence time at a specified temperature.

40 CFR 60.482-10(c) requires the operator to choose one of two compliance options: 95% control or 20 ppm exit concentration (whichever is less stringent), or a minimum residence time and temperature.

40 CFR 60.692-5(a) requires the operator to choose one of two compliance options: 95% control or a minimum residence time and temperature.

40 CFR 61.242-11(c) requires the operator to choose one of two compliance options: 95% control or 20 ppm exit concentration (whichever is less stringent), or a minimum residence time and temperature.

EPA's October 8, 2004, letter directs this finding of cause to reopen towards all refineries" in the Bay Area. The District has reviewed applicability of these requirements, and believes that EPA's finding of cause to reopen is relevant to the following sources at the Bay Area refineries:

Source	Applicable Req.	Monitoring contained in Current Permit	
		Temp	Res. Time
Chevron			
Fugitive Sources	60.482-10(c)	Table VII.H.2.1	None

(abated by ES-300's or ES-60)			
Fugitive Sources (abated by ES-300's or ES-60)	60.692-5(a)	Table VII.H.2.1	None
Fugitive Sources (abated by ES-300's or ES-60)	61.242-11(c)	Table VII.H.2.1	None
Conoco-Phillips			
Components	60.482-10(c)	None—all subject sources are vented to fuel gas system	None—all subject sources are vented to fuel gas system
Components	60.692-5(a)	None—all subject sources are vented to fuel gas system	None—all subject sources are vented to fuel gas system
Tesoro			
Components	60.482-10(c)	Table VII-CF	Table VII-CF
Components	60.692-5(a)	None (temp monitoring for 60.692-5(b) in Table VII-CF)	None
Components	61.242-11(c)	Table VII-CF	Table VII-CF
Shell			
No affected sources			
Valero & Valero Asphalt			
No affected sources			

The District is proposing to address EPA's concerns by adding a new federally-enforceable permit condition to the permit. This condition requires the facility operator to install monitoring capable of determining, on a continuous basis, the flow rate through each affected enclosed combustion device. Where necessary, the District has also added a permit condition requiring continuous monitoring of temperature.

The new flow rate condition provides the operator with the opportunity to demonstrate that flow monitoring is not necessary to assure compliance with the applicable standard.

This may be done, for example, through a demonstration that flow is physically limited such that the minimum required residence time may never be exceeded. The demonstration might also take the form of a showing that temperature monitoring at a particular device serves as a reliable indicator of efficient combustion, and therefore that destruction efficiency is consistent with the design of the device to achieve 95% or better destruction efficiency. The demonstration may examine, among other things, design review of the thermal oxidizer, review of available historic operating and emissions data, a review of expected gas flow quantities from upstream sources, or analysis of the interdependency of flow rate and temperature. The District does not intend by this discussion to foreclose any method of demonstration. The District will evaluate each demonstration submitted and reach an independent conclusion.

If the District concludes in writing that the operator has made a valid demonstration, then only continuous monitoring of temperature will be required, and the increments of progress will no longer apply. A modification of the Title V permit will be required to delete the flow monitoring requirement in its entirety.

The proposed permit condition does not specify a date by which demonstrations must be submitted. The District will review submittals in a timely manner, but submittal will not excuse the operator from installing flow monitoring by the date required in the permit. Installation of the flow monitor can be avoided only by submittal of a demonstration with sufficient time for the District to make the required determination.

Installation of flow monitoring would be required for any affected unit for which the operator wishes to retain the option of complying through attainment of the specified temperature and residence time requirements. Under that compliance option, monitoring of flow is necessary in order to verify compliance with residence time. Therefore the permit must provide for such monitoring as long as that compliance option is provided in the permit. The District's understanding is that all of the affected units identified above will comply with the relevant standards through the 95% control option. However, this understanding needs to be confirmed in writing by each operator. If such confirmation is received, then upon finalizing this revision the permit will be changed to reflect that only the 95% option is available. Elimination of the flow monitoring requirement would then be available if the demonstration discussed above is adequate.

Enclosed Combustion Device Condition:

Condition 22003:

Added during the January 2005 reopening of the Title V permit.

Effective July 1, 2006, Owner/operator of A-414, A-620, A-621, A-622, A-623, A-624, A-625, A-627, and A-628 shall monitor and record operating parameters such that the flow rate may be continuously determined. The owner/operator shall meet the following increments of progress:

April 1, 2005 Submit a proposed monitoring plan listing the parameters to be monitored and the method used to calculate flow rate from the parameters.

July 1, 2005 Submit to the APCO a detailed design of the proposed monitoring system, including probe/sample locations, range and span of the proposed instruments, and any other information necessary to review the design.

June 1, 2006 Complete installation and testing of the monitoring system.

The increments of progress shall not apply if the APCO determines in writing that monitoring of temperature alone is sufficient to verify compliance with 40 CFR 60.482-10(c); 40 CFR 60.692-5(a); and/or 40 CFR 61.242-11(c). Basis: Monitoring required under 2-6-409.2 to show compliance with 40 CFR 60.482-10(c); 40 CFR 60.692-5(a); and/or 40 CFR 61.242-11(c).

Changes to the Permit

Section IV

A citation to permit condition 22003 has been added to Table IV.H.2.1.

**Table IV.H.2.1 VOC Sources
Source-specific Applicable Requirements**

Fugitive Components

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
<u>Condition 22003</u>	<u>Applies to A-414, A-620 – 625, A-627, A-628</u>	<u>Y</u>	

Section VI

Permit condition 22003 has been added to Section VI. (See condition above.)

Section VII

Reference to permit condition 22003 has been added to Table VII.H.2.1 for each affected thermal oxidizer.

**Table VII.H.2.1 VOC Sources
Applicable Limits and Compliance Monitoring Requirements**

Fugitive Components

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
POC	60.692-5(a)	Y		Closed vent system using combustion devices shall have 0.75 sec. residence and 816 degrees C.	60.692-5(e)(1) and 60.692-5(e)(5) <u>and condition #22003</u>	P/E and C	Repair the closed system to eliminate any emissions detected as soon as possible, but no later than 30 days from the date the emissions are detected. <u>Temperature and flowrate monitoring</u>
POC	60.482-10 (c)	Y		Combustion devices $\geq 95\%$ destruction efficiency or ≥ 0.75 seconds and $\geq 816^{\circ}\text{C}$	60.482-10(e) <u>and condition #22003</u>	C	<u>Temperature and flowrate monitoring</u>
POC	61.242-11 (c)	Y		Combustion devices $\geq 95\%$ destruction efficiency or ≥ 0.50 seconds and $\geq 760^{\circ}\text{C}$	61.242-11(e) <u>and condition #22003</u>	C	<u>Temperature and flowrate Monitoring</u>