May __, 2013

Ms. Kimberly Damico
Environmental Engineer
Chevron Products Company
El Segundo Refinery
324 W. El Segundo Blvd.
El Segundo, CA 90245

Re: Rule 1118 Flare Monitoring and Recording Plan
Application Number: 458606
Plan Owner/Operator: Chevron Products Company
Facility ID: 800030
Facility Address: 324 W. El Segundo Blvd, El Segundo, CA 90245

Dear Ms. Damico:

The South Coast Air Quality Management District (AQMD) has reviewed the revised Flare Monitoring and Recording Plan (FMRP) submitted on June 30, 2006 by Chevron to comply with District Rule 1118(f)(1)(A). Based on the information contained in the plan, along with the supplemental information submitted in response to additional information requests made by the District, the compliance plan, with exception to the proposed data substitution and flare event determination, is approved subject to the following conditions. This revised FMRP, as approved, will supersede the amended plan approved under A/N 359189 on December 2, 2005.

The El Segundo Refinery shall comply with all provisions of this approved revised Flare Monitoring and Recording Plan unless the plan is suspended, revoked, modified, reissued, or denied, as well as all other applicable requirements of Rule 1118. Violation of any terms of the plan is a violation of Rule 1118.

CONDITIONS

1. The owner/operator shall perform monitoring and recording of the operating parameters for the following flares in accordance with this approved compliance plan and other applicable requirements of Rule 1118(g). The monitoring and recording shall be performed at all times except when the flare monitoring system is out of service for reasons described in Rule 1118(g)(5)(A).

Flare	Alky (C3012)	Coker (C1785)	FCC (C1746)	Isomax[1] (C1749)	LSFO (C1757)	SNR (C4116)
Service Type	General	General	General	General	General	Clean

[1]*Flare with two (2) Panametrics flow meters.*

2. For the general service flares, a flare event occurs when the flow velocity of vent gas in the flare equals to 0.10 feet per second (fps) or greater. The flare event ends when the flow velocity drops below 0.12 fps unless the owner/operator can provide verifiable monitoring records, approved by the AQMD, to demonstrate no more vent gas was combusted in the flare for the purpose of determining when the flare event ends.

   The volumetric flow thresholds, in standard cubic feet per hour (SCFH), for the flow velocities specified in Condition 2 are as follow:

Flare	**SCFH @ 0.10 fps**	**SCFH @ 0.12 fps**
Alky	3,456	4,147
Isomax	4,522	5,426
Coker	1,764	2,117
FCC	2,542	3,050
LSFO	3,456	4,147

3. For the SNR flare (C4116), a flare event occurs when the valve position of flow control valve, PV-093C, is not in the fully closed position (> 0%). A flare event ends when the valve position of PV-093C is fully closed (≤ 0%). The owner/operator shall install and maintain a valve position indicator to continuously monitor and record the valve position of PV-093C from 0% to 100% open.

4. A flare event lasting 24 hours or less shall be considered a single flare event even when the event occurs in two consecutive days. When a flare event continues for more than 24 hours, each calendar day shall be a separate flare event.

5. The continuous HHV analyzers, total sulfur analyzers and gas flow meters used in this flare plan shall meet or exceed the minimum specifications described in Attachment A of Rule 1118. The flare monitoring system shall also be certified by the AQMD. For quality assurance procedures, the owner/operator shall follow the Guidelines for Rule 1118 Flare Monitoring System Quality Assurance and Quality Control Plan published by the AQMD.

6. When the maximum range of a flow meter is exceeded, the flow rate shall be assumed to be the maximum design capacity of the flare.

7. Volumetric flow rates of vent gases shall be corrected to standard conditions of 14.7 psia and 68°F.

8. Whenever the continuous flow meter, HHV and/or TSC analyzer(s) for the flare is out of service due to breakdowns or maintenance, the owner or operator shall use the data substitution method referenced in Attachment B of Rule 1118 to calculate and report flare emissions except when an alternative data substitution procedure has been approved in writing by the District. Flow meter and analyzer(s) downtime shall be limited pursuant to Rule 1118(g)(5)(A).

9. For the general service flares, the owner/operator shall calculate emissions of criteria pollutants from each flare and each flare event using the methods described in Attachment B of Rule 1118.

10. For the SNR flare (C4116), the owner/operator shall use the following equations and emission factors to calculate emissions of criteria pollutant for each flare event:

Vent Gas (Clean Service Flare)		
Air Pollutant	Equation	Emission Factor
ROG	$E = V_v \times EF$	1.2 lb/MMScf
NOx	$E = V_v \times EF$	30.05 lb/MMScf
CO	$E = V_v \times EF$	315.47 lb/MMScf
PM10	$E = V_v \times EF$	1.29 lb/MMScf
SOx	$E = V_v \times EF$	0 lb/MMScf

Where:

E = Emissions in pounds
V_v = Volume flow of vent gas, as measured in MMSCF at 14.7 psia and 68°F
EF = Emission Factor

11. The owner/operator shall install and maintain a flow meter to monitor and record the pilot and purge gas flow to the general service flares.

12. The owner/operator shall monitor the flare at all times for presence of a pilot flame using a thermocouple or equivalent device approved by the Executive Officer that will alarm the owner/operator in the event of a flame out. The owner/operator shall re-ignite the pilot immediately after a pilot flame out occurs.

13. The owner/operator shall notify the Executive Officer within one hour of any unplanned flare event with emissions exceeding either 100 pounds of VOC or 500 pounds of sulfur dioxide, or exceeding 500,000 standard cubic feet of flared vent gas. The owner/operator shall also notify the Executive Officer by telephone at least 24 hours prior to the start of a planned flare event with emissions exceeding either 100 pounds of VOC or 500 pounds of sulfur dioxide, or 500,000 standard cubic feet of combusted vent gas.

14. The owner/operator shall conduct a Specific Cause Analysis for any flare event, excluding planned shutdown, planned startup and turnaround, resulting in any of the

followings: (a) 100 pounds of VOC emissions. (b) 500 pounds of sulfur dioxide emissions. (c) 500,000 standard cubic feet of vent gas combusted. The analysis shall identify the cause and duration of the flare event and describe any mitigation and corrective action taken to prevent recurrence of a similar flare event in the future. Unless an extension is granted, the owner/operator shall submit Specific Cause Analysis to the Executive Officer within 30 days of the event.

15. The owner/operator shall conduct an analysis and determine the relative cause for a flare event that results in combustion of more than 5,000 standard cubic feet of vent gas. A Specific Cause Analysis may be submitted to satisfy this condition.

16. The owner/operator shall submit a complete Flare Minimization Plan for approval of the Executive Officer no later than 90 days from the end of a calendar year in which flare emissions exceeding the annual performance targets set by Rule 1118(d)(1). The plan shall comply with the requirements of Rule 1118(e).

17. The owner or operator shall maintain records in a manner approved by the Executive Officer for the following.
    a. Flare event data collected pursuant to paragraph (g)(3), (g)(4), (g)(5), (g)(6) and subparagraph (g)(8)(C) of Rule 1118 as applicable.
    b. Total daily and quarterly emissions of criteria pollutant from each flare and each flare event along with all information specified by Rule 1118(i)(5)(B).
    c. Pilot flame failure report.
    d. Planned and unplanned flare monitoring system downtime report that includes date and time and explanation for taking the system out of service.
    e. Information to substantiate any exemptions taken under Rule 1118(k).
    f. Monitoring records of valve position indicator(s) pursuant to Condition No. 3.
    g. Specific Cause Analysis completed pursuant to Condition No. 14.
    h. Relative Cause Analysis completed pursuant to Condition No. 15.
    i. Annual acoustical pressure relief device leak survey conducted pursuant to Rule 1118(c)(1)(C).
    j. Annual sulfur dioxide emissions for all flares at the refinery normalized over the crude oil processing capacity in calendar year 2004.
    k. Video records pursuant to Rule 1118(g)(7).

    Within 30 days after the end of each calendar quarter, the owner/operator shall submit a quarterly report to the AQMD Refinery Compliance Team to the address below. Items (a) through (h) shall be submitted quarterly in electronic format. Hard copy of item (i) shall be submitted with the quarterly report for the quarter which the survey was conducted. Hard copy of item (j) shall be submitted with the last quarterly report for the year. Item (k) shall be made available to the Executive Officer upon request.

    All records required by this condition shall be certified for accuracy in writing by the responsible facility official and maintained for at least five years.

SOUTH COAST AIR QUALITY MGMT DISTRICT
REFINERY COMPLIANCE
1500 WEST CARSON STREET, SUITE 115
LONG BEACH, CA 90810

Please review the plan carefully and discard the earlier approved version. If you have any questions, please contact Mr. Thomas Lee at (909) 396-3138 or tlee1@aqmd.gov.

Sincerely yours,

Danny Luong, P.E.
Senior Manager
Refinery and Waste Management Permitting

cc: Ed Pupka
A/N 458606 file