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Mr. Marshall Waller  
Interim Director, Environmental Services  
ConocoPhillips  
1660 W. Anaheim Street  
Wilmington, CA 90744

**Re:** Rule 1118 Flare Monitoring and Recording Plan  
Application Number: 484549  
Plan Owner/Operator: ConocoPhillips - Wilmington Plant  
Facility ID: 800363  
Facility Address: 1660 W. Anaheim St., Wilmington, CA 90744

Dear Mr. Marshall Waller:

The South Coast Air Quality Management District (AQMD) has reviewed the revised Flare Monitoring and Recording Plan (FMRP) dated June 20, 2006 by the ConocoPhillips Wilmington Refinery to comply with District Rule 1118(f)(1)(A). The proposed plan (A/N 458034) was subsequently modified under application A/N 484549 with new revisions for Sections C, J and M. Based on the information contained in the latest plan, along with the supplemental information submitted in response to additional information requests made by the District, the compliance plan is approved subject to the following conditions. This revised FMRP, as approved under A/N 484549, will supersede the amended plan approved under A/N 400212 on December 16, 2005.

**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	North	UK	South	LPG	LPG (Spare*)
Type	General Service	General Service	General Service	Clean Service	Clean Service

\*Applicable only when flare is in service.

2. A flare event occurs when the flow velocity of vent gas in a flare equals to 0.10 feet per second or greater. The flare event ends when the flow velocity drops below 0.12 feet per second unless the Executive Officer approves in writing, on a case by case basis, the use of flare water seal, header pressure, closure of control valve and/or digital flare image monitoring to demonstrate that no more vent gas was combusted in the flare for the purpose of determining when a flare event ends.
3. 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.
4. The continuous HHV analyzer(s), total sulfur analyzer(s) and gas flow meter(s) 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.
5. 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.
6. Volumetric flow rates of vent gases shall be corrected to standard conditions of 14.7 psia and 68°F.
7. 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 Executive Officer. Flow meter and analyzer(s) downtime shall be limited pursuant to Rule 1118(g)(5)(A).
8. 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.
9. For the clean service flare, the owner/operator shall calculate emissions of criteria pollutants from each flare event using the equation and emissions factors for 'Propane and Butane' in Attachment B of Rule 1118.
10. The owner/operator shall install and maintain flow meters to monitor and record the pilot and all purge gas flows to the general service flares.
11. The owner/operator shall monitor the flares at all times for presence of a pilot flame using thermocouple that will alarm the owner/operator in the event of a flame out. The pilot shall be re-ignited immediately after a pilot flame out occurs.
12. 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.

13. 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.
14. The owner/operator shall conduct an analysis and determine the relative cause of a flare event that results in combustion of more than 5,000 standard cubic feet of vent gas. A Specific Cause Analysis may be substituted to satisfy this condition.
15. For the purpose of Rule 1118(d)(1) compliance determination, flare emissions from this facility and ConocoPhillips Carson Refinery (facility ID #800362) shall be considered as flare emissions from a single petroleum refinery.
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. Specific Cause Analysis completed pursuant to Condition No. 13.
  - g. Relative Cause Analysis completed pursuant to Condition No. 14.
  - h. Annual acoustical pressure relief device leak survey conducted pursuant to Rule 1118(c)(1)(C).
  - i. Combined annual sulfur dioxide emissions for all flares at ConocoPhillips Wilmington (ID 800363) and ConocoPhillips Carson (ID 800362) normalized over the combined crude oil processing capacity in calendar year 2004 pursuant to Condition 15.

- j. 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 Enforcement Team to the below address. Items (a) through (g) shall be submitted quarterly in electronic format. Hard copy of item (h) shall be submitted with the quarterly report for the quarter which the survey was conducted. Hard copy of item (i) shall be submitted with the last quarterly report for the year. Item (j) 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

18. The owner/operator shall comply with all provisions of this approved Revised Flare Monitoring and Recording Plan unless the plan is suspended, revoked, modified, reissued, or denied and all other applicable requirements of Rule 1118 that are not specified in this approved plan. Violation of any of the terms of the plan is a violation of Rule 1118.

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 [tleel@aqmd.gov](mailto:tleel@aqmd.gov).

Sincerely yours,

Jay Chen, P.E.  
Senior AQ Engineering Manager  
Refinery/Waste Mgmt/Terminals Permitting

cc: Ed Pupka  
A/N 484549 file