South Coast
Air Quality Management District
21865 Copley Drive, Diamond Bar, CA 91765-4178
(909) 396-2000 · www.aqmd.gov

April 6, 2010

Mr. Jon Elliott
Associate Environmental Engineer
Valero Wilmington Refinery
2402 East Anaheim
Wilmington, CA 90744-4081

Re: Rule 1118 Flare Monitoring and Recording Plan
Application Number: 458530
Plan Owner/Operator: Ultramar Inc. dba: Valero Wilmington Refinery
Facility ID: 800026
Facility Address: 2402 East Anaheim, Wilmington, CA 90744

Dear Mr. Elliott:

The South Coast Air Quality Management District (AQMD) has reviewed the revised Flare Monitoring and Recording Plan (FMRP) submitted on June 29, 2006 by the Valero Wilmington Refinery to comply with District Rule 1118(f)(1)(A). Based on the information contained in the plan, along with the supplemental information submitted on February 27, 2009 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, will supersede the amended plan approved under A/N 341682 on December 2, 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	Phase 0	Phase 1	Phase 2	LPG
Service Type	General	General	General	Clean

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. The owner/operator may use monitoring records of the flare water seal level and closures of control valves to demonstrate that no more vent gas was combusted in the flare for the purpose of determining when the flare event ends.

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3. A flare event lasting 24 hours or less shall be considered a single flare event even when the vent 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, total sulfur analyzer and gas flow meter used in this flare plan shall meet the requirements of Rule 1118 Attachment A and shall be certified by the AQMD. The owner/operator shall also comply with the requirements specified in the Quality Assurance and Quality Control Plan (QAQCP) approved by the AQMD on November 2009 for the flare monitoring equipment.

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 flow meter, HHV and/or TSC analyzer(s) is down 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. Analyzer(s) downtime shall be limited pursuant to Rule 1118(g)(5)(A).

8. 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 Phase 0 flare only, emissions calculations for acid vent gas from the Sulfur Recovery Unit shall be calculated using a default total sulfur concentration of 95% (950,000 ppmv) and HHV of 615 Btu/scf in lieu of analyzer results or sampling. An acid vent gas flare event occurs whenever control valve 40-PV-28 is not in the closed position. A valve position indicator shall be maintained to continuously monitor the valve's open or close position.

10. 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.

11. For the LPG flare only, the pilot gas and purge gas flow shall be based on the maximum design capacity of 390 SCFH each.

12. The owner/operator shall monitor the flares at all times for presence of a pilot flame using a thermocouple that will alarm the owner or 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/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. Monitoring records of water seal levels and closures of control valves.
    d. Pilot flame failure report.
    e. Planned and unplanned flare monitoring system downtime report that includes date and time and explanation for taking the system out of service.
    f. Information to substantiate any exemptions taken under Rule 1118(k).
    g. Monitoring records of valve position for control valve 40-PV-28 pursuant to Condition No. 9.
    h. Specific Cause Analysis completed pursuant to Condition No. 14.
    i. Relative Cause Analysis completed pursuant to Condition No. 15.
    j. Annual acoustical pressure relief device leak survey.
    k. Annual sulfur dioxide emissions for all flares at the refinery normalized over the crude oil processing capacity in calendar year 2004.
    l. 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 at the below address. Items (a) through (i) shall be submitted quarterly in electronic format. Hard copy of item (j) shall be submitted with the quarterly report for the quarter which the survey was

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conducted. Hard copy of item (k) shall be submitted with the last quarterly report for the year. Item (l) 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, as well as all other applicable requirements of Rule 1118. 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 tlee1@aqmd.gov.

Sincerely yours,

Jay Chen, P.E.
Senior AQ Engineering Manager
Refinery and Waste Management Permitting

cc: Ed Pupka
A/N 458530 file

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