

February 23, 2012

Mr. Eric Daley  
Environmental Planning Supervisor  
BP West Coast Products LLC  
P.O. Box 6210  
Carson, CA 90749-6210

Re: Rule 1118 Flare Monitoring and Recording Plan  
Application Number: 458527  
Plan Owner/Operator: BP West Coast Products LLC, Carson  
Facility ID: 131003  
Facility Address: 2350 E. 223<sup>rd</sup> St., Carson, CA 90749

Dear Mr. Daley,

The South Coast Air Quality Management District (AQMD) has reviewed the revised Flare Monitoring and Recording Plan (FMRP), Revision B, submitted August 30, 2010 by the BP Carson Refinery to comply with District Rule 1118(f)(1)(A). The District acknowledges that all references to Appendix F in this FMRP have been withdrawn per BP's 7/21/11 request. Based on the information contained in the plan and additional information submitted, the compliance plan except Appendix F is approved subject to the following conditions. This revised FMRP, as approved, will supersede the amended plan approved under A/N 341699.

The owner/operator shall comply with all provisions of this approved Revised Flare Monitoring and Recording Plan subject to the conditions below, 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.

You previously requested guidance on gases generated at Ineos Polypropylene LLC (Facility ID 124808) and combusted in the #5 Flare at the BP Carson Refinery. Since Ineos Polypropylene is not subject to District Rule 1118, flaring of these gases is not covered in this approved plan nor subject to below conditions.

### 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).

<b>Flare</b>	South Area (Coker)	#5 (Isom)	FCC	Hydrocracker	FFHDS
<b>Service Type</b>	General	General	General	General	General

2. A flare event occurs when the velocity exceeds 0.1 ft/s and a water seal level indicator identified below drops below 20% (where a water seal level of 20% is equivalent to water seal static pressure of 7.2" WC). A flare event ends when the same water seal level indicator exceeds 60% (equivalent to a static pressure of 39.6" WC) for 60 consecutive minutes, inclusive of those 60 minutes.

<b>Flare</b>	South Area (Coker)	#5 (Isom)	FCC	Hydrocracker	FFHDS
<b>Level Indicator</b>	70LI339	80LI370	11LI360	03LI395	23LI349

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 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 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 flow meter, HHV and/or TSC analyzer(s) is down due to breakdowns or maintenance, the owner or operator shall only 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. The owner or operator shall install and maintain flow meters to monitor and record the pilot and all purge gas flows to the general service flares.
10. 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 or operator shall re-ignite the pilot immediately after a pilot flame out occurs.
11. 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 a vent gas volume exceeding 500,000 standard cubic feet. 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 a vent gas volume exceeding 500,000 standard cubic feet.
12. 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, event category, 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.
13. 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.
14. 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).
15. 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. 12.
- g. Relative Cause Analysis completed pursuant to Condition No. 13.
- h. Monitoring records from water seal level indicators pursuant to Condition No. 2.
- 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 below address. Items (a) through (g) 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. Items (h) and (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

Sincerely,

Jay Chen, P.E.  
Senior Engineering Manager  
Refinery, Waste Management & Terminals Permitting  
Engineering and Compliance