WASHINGTON STATE DEPARTMENT OF ECOLOGY
POST OFFICE BOX 47600
OLYMPIA, WASHINGTON 98504-7600

IN THE MATTER OF:	]	
	]	PSD 95-01, FIRST AMENDMENT
BP Cherry Point Refinery	]	
4519 Grandview Road	]	FINAL APPROVAL OF
Blaine, Washington 98230	]	PSD APPLICATION
	]	

Pursuant to the United States Environmental Protection Agency (EPA) regulations for the Prevention of Significant Deterioration (PSD) set forth in Title 40, Code of Federal Regulations, Part 52 and regulations set forth in the Washington Administrative Code 173-400-141 and based upon the request for this amendment from BP West Coast Products, LLC on July 28, 2008, and the technical analysis performed by the Washington State Department of Ecology (Ecology), Ecology now finds the following:

FINDINGS

1. BP West Coast Products, LLC (BP, formerly British Petroleum) operates a petroleum refinery in Ferndale, Washington, formerly owned by ARCO Petroleum Products Co. (ARCO), and known as the BP Cherry Point Refinery.

2. BP Cherry Point Refinery is a major stationary source that emits more than 100 tons of pollutants per year.

3. BP Cherry Point Refinery is located in an area that has been designated Class II for the purposes of PSD evaluation, and is located approximately 80 km from the nearest Class I area.

4. BP Cherry Point Refinery is located in an area that is currently designated as attainment for all national air quality standards and all state air quality standards.

5. ARCO obtained PSD approval to construct and operate a third calciner at the BP Cherry Point Refinery dated December 20, 1984 (PSD No. 3).

6. That permit was rescinded and reissued on January 30, 1989, to include an increase in the nitrogen oxides emission limit (PSD 89-2).

7. ARCO requested a new PSD permit to include sulfuric acid mist emissions (H_2S0_4) from the calciner. Ecology granted that request in PSD 95-01 (March 15, 1995). PSD 89-2 remained and still remains in effect. PSD 95-01 allowed an increase of up to 80 tons per year of H_2S0_4.

8. In this first amendment to PSD 95-01, BP requests expanding the H_2S0_4 test method to allow using EPA Conditional Test Method 013. In accordance with EPA

guidance, approval of this change is subject to opportunity for permit veto by EPA and public notice and opportunity for comment.[1]

9. In response to public comment, BP requested several additional changes to PSD 95-01:

   a. Deletion of Approval Condition 2. Approval Condition 2 required "participat(ion) in a dry deposition study in the North Cascade National Park." Dee Morse (National Park Service) confirmed BP has satisfied this condition.[2] Ecology agrees.

   b. Modification of Approval Condition 17.2 (formerly 3) to allow updating the monitoring methodology for compliance with Approval Condition 17.1. Ecology agrees with the exception that Ecology cannot delegate approval of amended monitoring methodology to the Northwest Clean Air Agency under a PSD permit.

   c. Approval Condition 17.3 is modified to address amended monitoring plans.

10. The emissions of H_2S0_4 are "significant" because they result in a net increase of more than seven tons per year. The permit modification must be treated as a "major modification" under PSD review.

11. A wet scrubber followed by a wet electrostatic precipitator has been selected to be Best Available Control Technology (BACT) for the control of H_2S0_4 mist.

12. The ambient impacts of the proposed increase in emissions were determined with the use of the EPA's Industrial Source Complex Short-Term 2 Model (Version 92062).

13. Modeling results show that there will be an increase of H_2S0_4 of approximately 0.03 micrograms per cubic meter ($\mu g/m^3$) in the North Cascades National Park and sulfate deposition will increase by 0.2 kilograms per hectare per year (kg/ha/yr).

14. The project will have no significant impact on ambient air quality.

15. The project will not have a noticeable effect on industrial, commercial, or residential growth in the Ferndale area.

16. Visibility will not be impaired in any Class I area due to the proposed emissions.

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[1]EPA Technology Transfer Network, Emission Measurement Center, Test Methods, Category D: Historical Conditional Test Methods; http://www.epa.gov/ttn/emc/tmethods.html#CatB.
[2]Dee Morse (Environmental Protection Specialist, Air Resources Division, Natural Resource Program Center, National Park Service) to Elizabeth Waddell (Seattle Office, National Park Service), electronic message, January 9, 2009.

17. Ecology finds that all requirements for PSD have been satisfied. Approval of the PSD application is granted subject to the following conditions.

APPROVAL CONDITIONS

1. Emissions of sulfuric acid mist (H_2S0_4) shall not exceed 18.3 pounds per hour (lb/hr) or 50 milligrams per cubic meter (mg/m^3, 24-hour average).

2. Compliance with Approval Condition 1 will be measured by monitoring the performance of the Wet Electrostatic Precipitator (WESP) plus an annual source test (Approval Condition 4). BP shall follow the requirements of the monitoring plan approved by Ecology on May 2, 2007, or as amended. The monitoring plan may be amended by advance written approval from Ecology. The source test plan will include testing the stack for compliance while the WESP is operating in the most limiting condition in the WESP monitoring plan.

3. Within 90 days after Ecology approval of any amended WESP monitoring plan, BP shall source test Calciner Hearth 13 for H_2S0_4 mist. BP shall submit the related source test plan to Ecology for approval prior to testing. The monitoring plan may be amended by advance written approval by Ecology. The source test plan shall include operating ranges for the WESP, and will define operating conditions for testing the stack for compliance.

4. BP shall perform annual source testing for H_2S0_4 using 40 CFR 60 Appendix A Method 8 or EPA Conditional Test Method 013.

   4.1 BP shall perform annual source testing within 11 to 13 months of the anniversary of the previous test.

   4.2 An alternate test method may be used if approved in writing, in advance by Ecology.

5. Any activity which is undertaken by the company or others, in a manner which is inconsistent with the application and this determination, shall be subject to enforcement under the applicable regulations.

6. Access to the source by the Environmental Protection Agency, state or local regulatory personnel shall be permitted upon request for the purposes of compliance assurance inspections. Failure to allow such access is grounds for revocation of this determination of approval.

Reviewed by:

Bernard Brady, P.E.
Science and Engineering Section
Air Quality Program
Washington State Department of Ecology

1/23/09
Date

Approved by:

Stuart A. Clark, Program Manager
Air Quality Program
Washington State Department of Ecology

1/22/09
Date