

Daniel R. Toperosky
HSE Manager

Phillips 66
Ferndale Refinery
P.O. Box 8 Ferndale, WA 98248
Phone 360.384.1011



Department of Ecology
Cashiering Unit
PO Box 47611
Olympia, WA 98504-7611

August 18, 2014
HSE 450, File # 6.2.3.2

Re: Administrative change to PSD 00-02 Amendment 6

To Whom It May Concern:

As discussed with Gary Huisling of your staff, please find attached an application for an administrative amendment to PSD 00-02 Amendment 6 and a check for \$1900.

As required by paragraph 257 of the Consent Decree Civil Action No. H-05-258, Phillips 66 (previously ConocoPhillips) is required to submit a complete application within 90 days to incorporate any limits into a federally enforceable permit which are to survive the termination of the Consent Decree.

On June 3, 2014, EPA established the final long-term (365-day rolling average) of 96.1 ppmvd NOx @ 0%O₂ and a short-term NOx limit (7-day rolling average) of 123.2 ppmvd NOx @ 0% O₂ for the FCC unit, including clarifications. A copy of EPA final FCC NOx determination is attached.

Per EPA's approval letter:

"The NOx long-term limit shall apply at all times (including during startup, shutdown and malfunction) the FCU and/or carbon monoxide (CO) boiler are operating. The NOx short-term limit shall exclude periods of startup, shutdown, malfunction, but shall apply at all other times that the FCCU and/or CO boiler are operating. For days in which both the FCCU and CO boiler are not operating, no NOx values shall be used in the averages, and those periods shall be skipped in determining the 7-day and 365-day averages."

Phillips 66 requests inclusion of the final long and short term permit limits as well as the clarifying SSM and averaging language to PSD 00-02 Amendment 6. A copy of Amendment 6 is attached.

Phillips 66 would also take this opportunity to update the permit to reflect the name change which occurred in 2012 with the corporate restructuring whereby ConocoPhillips' Refining & Marketing business and Exploration and Production business were separated into two stand-alone companies. Phillips 66 Company is now the owner and operator of the Ferndale Refinery.

If you have any questions regarding this request, please do not hesitate to contact Sandy Paris at 360-384-8375 or at Sandy.Paris@P66.com.

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Washington Department of Ecology
August 18, 2014

Sincerely,



Daniel R. Toperosky

DRT/RFP kjm

Enclosure: Application for Prevention of Significant Deterioration
Check in the amount of \$1900.00
ConocoPhillips Final PSD Permit 00-02 Amendment 6
EPA Final FCCU NOx Limits for the Phillips 66 Ferndale Refinery

Cc: Ecology (2 copies)

Tonnie Cummings
Air Resource Specialist
National Park Service, Pacific West Region
Fort Vancouver NHS, 612 E. Reserve St.
Vancouver, WA 98661

Don Shepherd
Environmental Engineer
Air Resources Division
PO Box 25287
Denver, CO 80225-0287

Rick Graw
USDA Forest Service – Pacific Northwest Region
PO Box 35623
Portland, OR 97208-3623

Dan Mahar, PE
Permit Engineer
Northwest Clean Air Agency
1600 South Second Street
Mount Vernon, WA 98273-5202

Pat Nair
USEPA Region 10
Idaho Operations Office
950 W. Bannock Street, Suite 900
Boise, ID 83702



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

PO Box 47600 • Olympia, WA 98504-7600 • 360-407-6000

711 for Washington Relay Service • Persons with a speech disability can call 877-833-6341

July 1, 2011

NOTICE

The Air Quality Program has revised our permit fees beginning July 1, 2011. Bear with us as we fine-tune this new system. We want to give you a heads up on one point. Ecology set the initial fee rate at an amount that would cover the simplest type of permit. The amount of time required to review a permit application and issue a permit varies based on the complexity of the project. Therefore, it is possible that your initial fee will not cover the cost of processing your request. If that happens, we will send you a bill to cover our expenses.

We encourage you to work closely with your permit writer so that the permitting process, timeline, and costs are clear. These changes are our first step toward meeting the legislative mandate of shifting the cost of permitting from the state General Fund to the recipients of the permits. If you have any questions, please call the contact listed below.

Ecology Permitting Authority

Ecology Central Regional Office – Air Quality Program
Chelan, Douglas, Kittitas, Klickitat, or Okanogan County

Ecology Eastern Regional Office – Air Quality Program
Adams, Asotin, Columbia, Ferry, Franklin,
Garfield, Grant, Lincoln, Pend Oreille, Stevens,
Walla Walla or Whitman County

Ecology Northwest Regional Office – Air Quality Program
San Juan County

Ecology Industrial Section – W2Resources Program
For actions taken at
Kraft and Sulfite Paper Mills and Aluminum Smelters

Ecology Nuclear Waste Program

US Department of Energy Hanford Reservation

Contact

Lynnette Haller (509) 457-
7126
lynnette.haller@ecy.wa.gov

Greg Flibbert (509) 329-3400
gregory.flibbert@ecy.wa.gov

David Adler (425) 649-
7000
david.adler@ecy.wa.gov

Garin Schrieve (360) 407-
6900
garin.schrieve@ecy.wa.gov

Philip Gent (509) 372-
7950
philip.gent@ecy.wa.gov



Application for Prevention of Significant Deterioration

INSTRUCTIONS

Use this form for all projects in Washington that are subject to the Prevention of Significant Deterioration (PSD) Program. If you want Ecology to determine whether your project is subject to the PSD Program, submit a Request for a PSD Program Applicability Determination form (ECY 070-413).

Fill out the front and back of this form. Attach a check for the initial fee and mail the form and your application to:

**Department of Ecology
Cashiering Unit
P.O. Box 47611
Olympia, WA 98504-7611**

For Fiscal Office Use Only:
001-NSR-216-0299-000404

Check the box to indicate what you are submitting for review.

New project	Initial Fee
<input type="checkbox"/> New project application. The initial fee covers 158 hours of review.	\$15,000
<input type="checkbox"/> New PSD permit application that is limited to greenhouse gases. The initial fee covers 79 hours of review.	\$7,500
Revise an existing PSD permit	
<input checked="" type="checkbox"/> Administrative permit revision. The initial fee covers 20 hours of review.	\$1,900
<input type="checkbox"/> All other permit revisions. The initial fee covers 79 hours of review.	\$7,500
<input type="checkbox"/> Major modification. The initial fee covers 158 hours of review.	\$15,000
Other actions	
<input type="checkbox"/> Permit extension. This is a flat fee.	\$500
<input type="checkbox"/> Plant-wide applicability emission limit: establish limit. The initial fee covers 158 hours of review. [See note]	\$15,000
<input type="checkbox"/> Plant-wide applicability emission limit: all other requests. Other requests may include increasing a limit; renewing a limit; or processing an expired limit. The initial fee covers 79 hours of review. [See note]	\$7,500
Note. An additional fee does not apply when a request to establish a plant-wide applicability limit is part of an application covered by the new project, all other permit revisions, or major modification fees on this form.	
For more information	
Air Quality Program Science and Engineering Section Ecology Headquarters Office	Marc Crooks Phone: (360) 407-6800 E-mail: marc.crooks@ecy.wa.gov

If you need this document in a format for the visually impaired, call the Air Quality Program at 360-407-6800. Persons with hearing loss can call 711 for Washington Relay Service. Persons with a speech disability can call 877-833-6341.



Application for Prevention of Significant Deterioration

Read each statement, then check the box next to it to acknowledge what you have read.

<input checked="" type="checkbox"/>	The initial fee you submit may not cover the cost of processing your application. Ecology will track the number of hours spent on your project. If the number of hours exceeds the number of hours included in your initial fee, Ecology will send you a bill for that extra time.
<input checked="" type="checkbox"/>	Ecology will bill you \$95 per hour for each hour worked beyond the initial hours.
<input checked="" type="checkbox"/>	You must pay the bill before we will issue your permit or finalize an action or decision.

Applicant Information

The applicant is the business requesting services from Ecology and is responsible for paying the costs Ecology incurs.

Name of business Phillips 66 Ferndale Refinery

Physical location of project (city) Ferndale

Name of project Administrative change to PSD 00-02 Amendment 6

Responsible Official

The responsible official is the person responsible for overall operation of and ongoing compliance at the facility.

Name, Title Richard Harbison, Refinery Manager

Mailing address P.O. Box 8

City, State, Zip Ferndale, WA 98248-0008

Phone, Fax, E-mail (360) 384-8343, (360) 384-8398, Rich.Harbison@P66.com

Project Billing Contact Information

Ecology will send the responsible official the bills if there are any.

If the project billing contact is different from the responsible official, check this box and provide the required information.

Name, Title Rosanne Paris, Environmental Lead

Mailing address P.O. Box 8

City, State, Zip Ferndale, WA 98248-0008

Phone, Fax, E-mail (360) 384-8375, (360)384-8422, Sandy.Paris@P66.com

Project Consultant Information

If you hired a consultant to prepare the application (or materials), check this box and provide the required information.

Consultant Name, Title _____

Organization _____

Mailing address _____

City, State, Zip _____

Phone, Fax, E-mail _____

Responsible Official Signature Block

I certify, based on information and belief formed after reasonable inquiry, the statements and information in this application are true, accurate, and complete.

Printed Name Richard G Harbison Title Refinery Manager

Signature [Signature] Date 8/14/14



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
ENFORCEMENT AND
COMPLIANCE ASSURANCE

June 3, 2014

BY U.S. MAIL AND E-MAIL

Tim Goedecker
Program Manager, US Consent Decrees
Phillips 66 Company
3010 Briarpark Drive
Suite 8332-24
Houston, TX 77042

Re: *United States et al. v. ConocoPhillips Co.*, No. H-05-258 (S.D. Tex.) – Final
FCCU NOx Limits for the Phillips 66 Ferndale Refinery

Dear Mr. Goedecker:

EPA has reviewed Phillips 66's "E-SNCR Demonstration Report" for the Ferndale Refinery, dated May 23, 2013. Pursuant to Paragraphs 50 and 51 of the above-referenced consent decree, EPA is establishing the final limits for nitrogen oxides (NOx) for the Phillips 66 Ferndale fluidized catalytic cracking unit (FCCU), as specified below.

In its E-SNCR Demonstration Report, Phillips 66 proposed a long-term limit (365-day rolling average) of 96.1 parts per million, volumetric, dry (ppmvd) NOx @ 0% O₂ and a short-term limit (7-day rolling average) of 123.2 ppmvd NOx @ 0% O₂. While EPA agrees with the proposed numerical NOx emission limits, EPA is clarifying the periods during which these limits apply.

Therefore, based on its analysis of the data during the demonstration, EPA determines that the long-term limit shall be 96.1 ppmvd NOx @ 0% O₂ on a 365-day rolling average basis and the short-term limit shall be 123.2 ppmvd NOx @ 0% O₂ on a 7-day rolling average basis. The NOx long-term limit shall apply at all times (including during startup, shutdown and malfunction) that the FCCU and/or carbon monoxide (CO) boiler are operating. The NOx short-term limit shall exclude periods of startup, shutdown, malfunction, but shall apply at all other times that the FCCU and/or CO boiler are operating. For days in which both the FCCU and CO boiler are not operating, no NOx values shall be used in the averages, and those periods shall be skipped in determining the 7-day and 365-day averages. The limits are presented in the table below.

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NOx Limits for the Phillips 66 Ferndale FCCU

Limit (ppmvd @ 0% O₂)	Phillips 66's Proposal	EPA's Determination
365-day rolling average	96.1	96.1
7-day rolling average	123.2	123.2

In accordance with Paragraph 51, Phillips 66 should continue to operate the FCCU to comply with the EPA-established emission limits. As provided in Paragraph 257, Phillips 66 shall apply for and make all reasonable efforts to incorporate these limits (including limitations on the treatment of emissions during periods of startup, shutdown and malfunction, and during periods during which the Ferndale FCCU is not operating, as provided above) into minor or major New Source Review and other applicable, federally enforceable permits for the Ferndale FCCU, as soon as practicable, but in no event later than ninety (90) days following this determination.

If you have any questions regarding this letter, please contact Patrick Foley at (202) 564-7978.

Sincerely,



Phillip Brooks, Director
Air Enforcement Division

cc: Director, Office of Compliance and Enforcement
U.S. Environmental Protection Agency, Region 10
Mail Code: OCE-164
1200 Sixth Avenue
Seattle, WA 98101

Director
Northwest Clean Air Agency
1600 South Second St.
Mount Vernon, WA 98273-5202

Refinery Manager
Phillips 66 Company
Ferndale Refinery
3901 Unick Road
P.O. Box 8
Ferndale, WA 98248

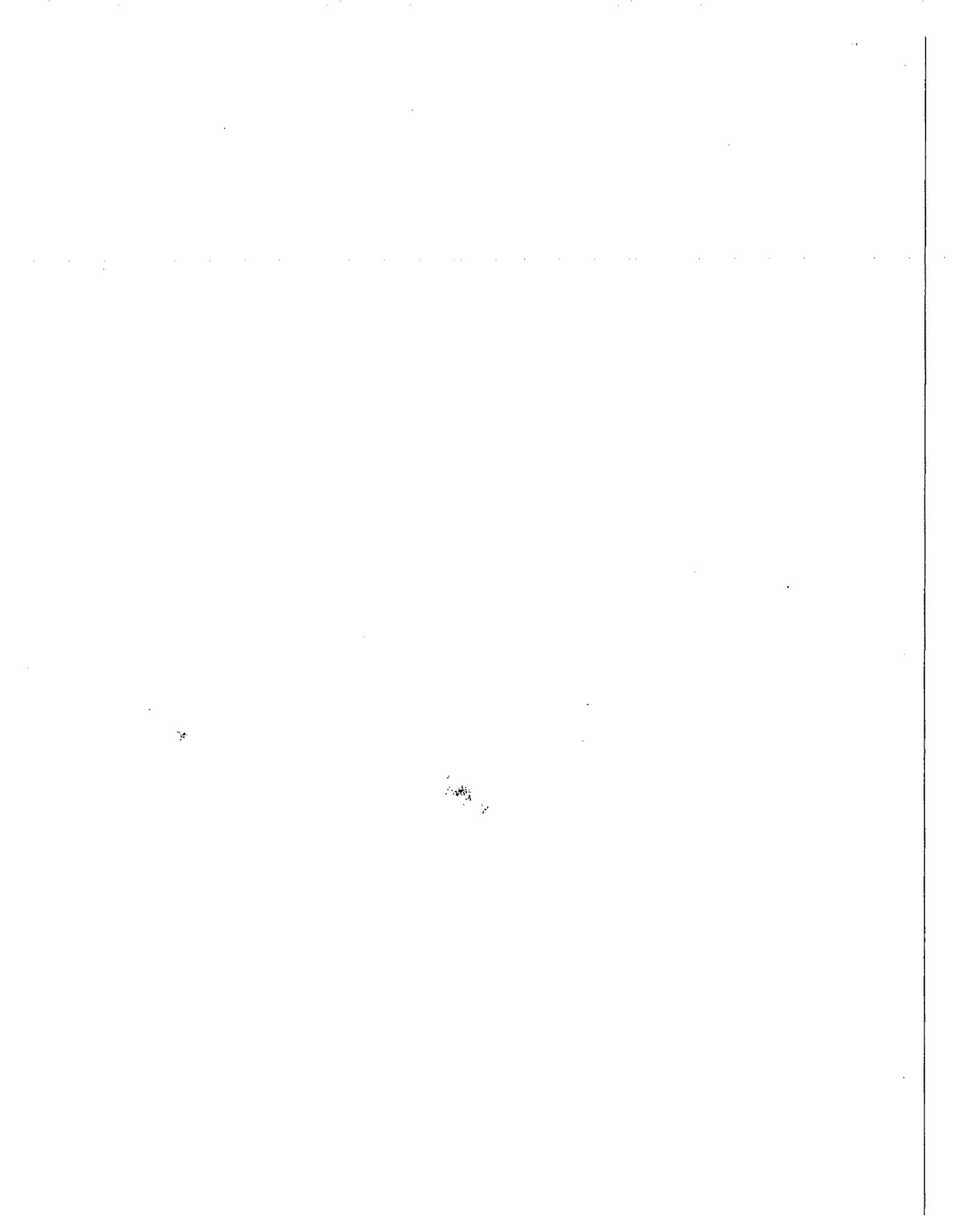
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Refining HSE Manager
Phillips 66 Company
3010 Briarpark Drive
Suite 8312
Houston, TX 77042

Managing Counsel, Global Refining, Procurement and Projects
Legal Department
Phillips 66 Company
3010 Briarpark Drive
Suite 8115
Houston, TX 77042

Via e-mail:

foley.patrick@epa.gov
csullivan@matrixnewworld.com



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

IN THE MATTER OF:

ConocoPhillips Company
Ferndale Refinery
3901 Unick Road, P.O. Box 8
Ferndale, Washington 98248

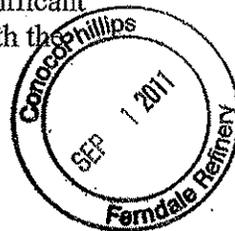
NO. PSD-00-02 Amendment 6

FINAL APPROVAL
OF 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 Notice of Construction Application (NOC) submitted by the ConocoPhillips Company (ConocoPhillips) on November 18, 2004, the additional information submitted on December 22, 2004, and the technical analysis performed by the Washington State Department of Ecology (Ecology), Ecology now finds the following:

FINDINGS

1. Amendment 6 is an administrative amendment that corrects a mistake in the wording that defines the flexibility of the time period between the annual tests required by existing Approval Conditions 13 and 14. The existing time period wording is incompatible with annual testing periods. There are no changes to the required testing interval or required test methods. ConocoPhillips requested this change in a letter dated May 18, 2011, as a part of their Title V permit renewal process.
2. Amendment 5 was an administrative amendment. Approval Condition 14 was changed from semi-annual to annual testing, and Approval Condition 21b was changed to submit testing reports within 30 days of the end of the month. ConocoPhillips requested this amendment because they identified a discrepancy between this approval and the EPA Consent Decree.
3. Amendment 4 was an administrative amendment, extending the compliance date for Approval Condition 7 from December 31, 2006, until June 30, 2007. This compliance date is based upon an EPA Consent Decree. ConocoPhillips requested this amendment because they had difficulty scheduling the on-site construction of this project.
4. Amendment 3 was based upon an increase in throughput from the Fluidized Catalytic Cracking Unit (FCCU) from a nominal 30,000 barrels-per-day to a nominal 35,000 barrels-per-day and an increase of FCCU coke burn rate to 29,000 lb/hr. Although the permit application states that particulate matter (PM) will not exceed the PSD Significant Emission Rate (SER), the facility has not been able to demonstrate compliance with the



PM and particulate matter smaller than 10 microns in diameter (PM₁₀) emission limits for the FCCU established in Northwest Clean Air Agency's (NWCAA's) Order of Approval to Construct (OAC #733a). Including PM in the permit modification is intended to restrict emissions from the project to below the significance levels for PM and PM₁₀, thereby avoiding the requirements of the PSD program for PM and PM₁₀. In addition, it was discovered that carbon monoxide (CO) was incorrectly removed from the permit as part of Amendment 1. CO will be added back into the permit as a result of this action.

5. Amendment 2 was an administrative amendment that changes the company name and simplifies the performance testing requirements in Approval Condition 2. On April 21, 2003, Ecology was informed that the performance test method specified in Approval Condition 2 limited the source test to one specific testing procedure. Ecology agreed to change the reference; thus allowing more flexibility in performance testing.
6. Amendment 1 was based upon the application received on January 28, 2002, and determined to be complete on March 14, 2002. The amendment proposes the S Zorb process (licensed by ConocoPhillips) as a replacement for the recently permitted hydrodesulfurizer. In addition to the S Zorb replacement, two heaters (heavy HCC gasoline stripper reboiler and the heavy FCC gasoline HDS feed heater) were combined into one heater (cat gasoline desulfurizer feed heater). Removing the two heaters resulted in emissions of CO below the PSD significance rates. CO emissions are no longer contained in this PSD permit. No emission increases were associated with this amendment.
7. The original permit was based upon an application received on April 26, 2000, and determined to be complete on August 8, 2000. Below is a description of the project.
8. Amendment 3 added new Approval Conditions 4, 5, 6, 7, 8, 9, 12, 13, 14, 15, and 16.
9. ConocoPhillips operates an oil refinery in Ferndale, Washington.
10. The original project consisted of two smaller projects. The Ferndale Upgrade Project and the Clean Fuels Project.
11. The Ferndale Upgrade Project consisted of installing a new nominally 30,000 barrels-per-day fluidized catalytic cracking unit (now estimated at 35,000 barrels-per-day), carbon monoxide boiler, and alkylation unit feed treater. The gas plant was modified to accommodate the new flow from the fluidized catalytic cracking unit.
12. The Clean Fuels Project involved revamping the existing No. 2 hydrofiner to treat the light straight-run gasoline. Additionally, a new nominally 17,500 barrel-per-day cat gasoline desulfurizer was constructed to treat fluidized catalytic cracked naphtha, and a new Merox contactor to treat the light fluidized catalytic cracked naphtha.

13. These projects are subject to the following New Source Performance Standards (NSPS): Subpart Db (Standards of Performance or Industrial – Commercial – Institutional Steam Generating Units) and Subpart J (Standards of Performance for Petroleum Refineries).
14. ConocoPhillips is one of the 28 source categories subject to PSD permitting if potential emissions of a criteria pollutant exceed 100 tons per year (tpy).
15. ConocoPhillips is a major stationary source that emits more than 100 tons of pollutants per year.
16. Amendment 3 qualified as a major modification because nitrogen oxides (NO_x), CO, and PM₁₀ have a “significant” emissions increase greater than 40, 100, and 15 tpy respectively.
17. Even though the emission increase of PM is below the PSD significant emission rate of 25 tpy, PM emission limits are included in this permit.
18. The emissions of all other air pollutants from the proposed modification are subject to review under Chapter 173-400 WAC and Chapter 173-460 WAC by the NWCAA.
19. In the original permit, ConocoPhillips elected to take a federally enforceable limit on the natural gas fired in the CO boiler limiting the boiler to an annual capacity factor of 10 percent for natural gas. This annual capacity factor will exempt the boiler from the standards for NO_x emissions under 40 CFR 60.44b(a) and 60.44b(e).
20. Several of the heaters are not able to reach their full capabilities due to undersized burners. Emissions from those units have been calculated below the units rated potential. The limitations are listed in Appendix A to this permit.
21. The project in Amendment 3 resulted in an increase of up to 499.63 tpy of NO_x.
22. An ultralow low NO_x burner has been determined to be Best Available Control Technology (BACT) for the control of NO_x from the cat gasoline desulfurizer feed heater.
23. Proper operation has been determined to be BACT for the control of NO_x from the FCCU.
24. Selective Non-Catalytic Reduction has been determined to be BACT for the control of NO_x from auxiliary firing from the CO boiler.
25. Good operating practices have been selected as BACT for the control of NO_x from the sulfur recovery unit.

26. The project in Amendment 3 resulted in a net emissions increase of up to 332.4 tpy of CO.
27. A thermal oxidizer (CO boiler) has been selected to be BACT for control of CO emissions from the FCCU.
28. Good Combustion Practices has been determined to be BACT for the control of CO from the CO boiler.
29. Good Combustion Practices has been selected to be BACT for the control of CO emissions from the SRU.
30. The project in Amendment 3 resulted in a net emissions increase of up to 29.54 tpy of PM₁₀.
31. The project in Amendment 3 resulted in a net emissions increase of up to 10.14 tpy of PM.
32. A wet gas scrubber has been selected to be BACT for controlling PM/PM₁₀ emissions from the FCCU.
33. The project is located in an area that has been designated Class II for the purposes of PSD evaluation and is located approximately 75 km from the North Cascades National Park and 100 km from the Glacier Peak Wilderness Area, the nearest Class I areas.
34. The project is located in an area that is currently designated in attainment for all national air quality standards and all state air quality standards.
35. The ambient impacts of the proposed increase in emissions associated with Amendment 3 were determined with the EPA's Industrial Source Complex Prime Model and CALPUFF Model in screening mode.
36. Modeling results show that there will be an increase of NO_x of approximately 0.09 micrograms per cubic meter (µg/m³) (annual average) in the North Cascade National Park due to this project. There is no change in the increase associated with Amendment 1 or Amendment 2.
37. Amendment 3 will have no significant impact on ambient air quality.
38. The project will not have a noticeable effect on industrial, commercial, or residential growth in the Ferndale area.
39. Visibility will not be impaired in any Class 1 area due to the proposed project.

40. Based upon the Technical Support Document dated April 11, 2005, 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 NO_x from the cat gasoline desulfurizer feed heater shall not exceed 17 ppmdv at seven percent O_2 over a 1-hour averaging period and 5.1 tpy over a 12-month rolling total. Initial compliance shall be determined in accordance with EPA Reference Method 7E.
2. Combined NO_x emissions from the FCCU and CO boiler, shall not exceed 127 ppmdv at seven percent O_2 over a 30-day rolling averaging period and 308.10 tpy over a 12-month rolling total. If ConocoPhillips is unable to meet the emission limits for NO_x listed above within 90 days of start-up, they must install a selective non-catalytic reduction unit and retest within 150 days of start-up.
3. Emissions of NO_x from the sulfur recovery unit shall not exceed 42.2 ppmdv at seven percent O_2 over a 1-hour averaging period and 9.88 tpy. Initial compliance shall be determined by EPA Reference Method 7E.
4. Emissions of CO from the cat gasoline desulfurizer feed heater shall not exceed 0.0824 lb/MMBtu over a 1-hour averaging period and 14.4 tpy over a 12-month rolling total. Initial compliance shall be determined in accordance with EPA Reference Method 10, 10A, or 10B.
5. Combined CO emissions from the FCCU and CO boiler shall not exceed 500 ppmdv at zero percent O_2 over a 1-hour averaging period and 100 ppmdv at zero percent O_2 over a 365-day rolling average. Initial compliance shall be determined in accordance EPA Reference Method 10, 10A, or 10B.
6. Emissions of CO from the Sulfur Recovery Unit shall not exceed 57.1 ppmdv at seven percent O_2 over a 1-hour averaging period and 8.30 tpy over a 12-month rolling total. Initial compliance shall be determined in accordance with EPA Reference Method 10.
7. By no later than June 30, 2007, combined PM/PM_{10} emissions from the FCCU and CO boiler shall not exceed 0.50 lb/1000 lb coke burn-off over a rolling 3-hour average and 0.020 grains per dry standard cubic foot corrected to seven percent O_2 over a rolling 3-hour average. Initial compliance shall be determined in accordance with EPA Reference Method 5B.
8. For the period between the time this permit becomes final and the date that ConocoPhillips demonstrates compliance with the emission limits in Approval Condition 7, combined PM/PM_{10} emissions from the FCCU and CO boiler shall not exceed 0.80

lb/1000 lb coke burn-off over a rolling 3-hour average when operating three scrubber water recirculation pumps and 0.020 grains per dry standard cubic foot corrected to seven percent O₂ over a 3-hour rolling average. Initial compliance shall be determined in accordance with EPA Reference Method 5B.

9. For the period between the time this permit becomes final and the date that ConocoPhillips demonstrates compliance with the emission limits in Approval Condition 7, ConocoPhillips will operate all three scrubber water recirculation pumps to the maximum extent practicable, except during pump malfunction or periods of scheduled maintenance of a pump. ConocoPhillips will optimize the operation of the pumps in order to minimize the periods of scheduled maintenance. ConocoPhillips will not schedule maintenance on more than one pump at any given time and scheduled maintenance will not exceed one week. During pump malfunction, ConocoPhillips will use best efforts to take all steps necessary (including pump replacement) to minimize the amount of time the FCCU wet gas scrubber operates with fewer than three pumps.
10. Compliance with Approval Conditions 1 and 3 will be monitored by yearly source testing in accordance with EPA Reference Method 7E as found in 40 C.F.R. Part 60, Appendix A, or an alternative approved method. Source testing shall be performed no sooner than 10 months after the previous test and no later than 13 months after the previous test.
11. Compliance with Approval Condition 2 will be monitored by a continuous emission monitor for NO_x meeting the performance specifications of 40 C.F.R. Part 60, Appendix B, and quality control/quality assurance requirements of 40 C.F.R. Part 60, Appendix F. The continuous emission monitor must be installed and certified within 180 days after start-up.
12. Compliance with Approval Condition 5 will be demonstrated by a Continuous Emission Monitor for CO meeting the performance specifications of 40 C.F.R. Part 60, Appendix B, and quality control/quality assurance requirements of 40 C.F.R. Part 60, Appendix F.
13. Compliance with Approval Conditions 4 and 6 will be demonstrated by yearly source testing in accordance with EPA Reference Method 10, as found in 40 C.F.R. Part 60, Appendix A, or an alternative approved method. ConocoPhillips will identify a surrogate parameter (such as fuel usage) and multiply it by the emission factor derived during the previous source test. Source testing shall be performed no sooner than 10 months after the previous test and no later than 13 months after the previous test.
14. Compliance with Approval Condition 7 will be demonstrated by annual source testing in accordance with EPA Reference Method 5B, as found in 40 C.F.R. Part 60, Appendix A, or an alternative approved method. Source testing shall be performed no sooner than 10 months after the previous test and no later than 13 months after the previous test. Source testing shall be performed at maximum normal FCCU feed rates.

15. Compliance with Approval Condition 8 will be determined by semi-annual source testing in accordance with 40 CFR 60 Appendix A Method 5B. Source testing shall be performed no sooner than four months after the previous test and no later than eight months after the previous test. Source testing shall be performed at maximum normal FCCU feed rates.
16. Compliance with Approval Condition 9 will be met by recordkeeping.
17. Within 90 days of start-up, ConocoPhillips shall conduct performance test for NO_x emissions from the cat gasoline desulfurizer feed heater, combined emissions from the, FCCU and CO boiler and the sulfur recovery unit, conducted by an independent testing firm. A test plan shall be submitted to Ecology for approval at least 30 days prior to testing. The term start-up is defined by 40 C.F.R. 60.2.
18. Use of natural gas shall be limited to 10 percent of fuel combusted in the CO boiler or 111,252 MMBtu/yr, over a calendar year averaging period.
19. The maximum firing rate of the cat gasoline desulfurizer feed heater, FCC combustion air heater, cat gasoline desulfurizer feed heater, CO boiler, and sulfur recover unit shall be limited to the values listed in Appendix A.
20. Within 90 days of initial start-up of the boiler, ConocoPhillips shall identify boiler operational parameters and practices that have been described as "good combustion practice." These operational parameters and practices shall be included in an operation and maintenance (O&M) manual for the boiler. The O&M manual shall also include a description of records that will be maintained to insure the continuous application of "good combustion practice." The O&M manual shall be maintained by ConocoPhillips and be available for review by state, federal, and local agencies. Emissions that result from a failure to follow the requirements of the O&M manual may be considered credible evidence that emission violations have occurred.
21. ConocoPhillips shall report the following monitoring data to the NWCAA and Ecology. It will no longer be necessary to report to Ecology when PSD compliance and enforcement delegated NWCAA or once the NWCAA has issued a Title V permit.
 - a) Submit the performance test data from the initial performance test and the performance evaluation of the continuous emission monitor's using the applicable performance specifications in 40 C.F.R. Appendix B.
 - b) Submit a report within 30 days of the end of each calendar month, or on another approved reporting schedule, and in the format approved by Ecology, including the following:
 - 1) Calendar date.

- 2) Average NO_x, CO, and PM/PM₁₀ emission rates from the FCC/CO boiler wet gas scrubber.
 - 3) Identification of any steam generating days for which NO_x data were not obtained, including reasons for not obtaining sufficient data and description of corrective actions taken.
 - 4) Identification of times emission data are excluded from the calculated average emission rate and the reasons for excluding the data.
 - 5) Wet scrubber pump operation and maintenance records pursuant to Approval Condition 9 until ConocoPhillips demonstrates compliance with the limits in Approval Condition 7.
- c) Submittal of monthly reports satisfies the quarterly reporting requirements of 40 C.F.R. 60.49b, except that ConocoPhillips shall submit a quarterly report, within 30 days after the end of each calendar quarter, including the following continuous emission monitor test data:
- 1) Days for which data were not collected.
 - 2) Reasons for which data were not collected.
 - 3) Identification of times when the pollutant concentration exceeds span of the continuous emission monitor.
 - 4) Description of any modifications to the continuous emission monitor system that could affect the ability of the system to comply with performance specifications 2 or 3.
 - 5) Results of any continuous emission monitor drift tests.
- d) In addition, ConocoPhillips shall maintain monitoring records on-site for at least five years and shall submit:
- 1) Excess emission reports to Ecology and the NWCAA, as appropriate.
 - 2) Results of any compliance source tests.
22. 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.

APPENDIX A

Unit	WEDS ID#	Maximum Firing Rate (MMBtu/hr) Unless Otherwise Noted
Sulfur Recovery Unit	17	23
Cat Gasoline Desulfurizer Feed Heater	A	40
FCC Combustion Air Heater	C	70
CO Boiler	E	109*

* Applies when auxiliary firing fuel gas.

23. Access to the source by the EPA, state, and local regulatory personnel shall be permitted upon request for the purposes of compliance assurance inspections. Failure to allow such access is grounds for an enforcement action.
24. This approval shall become invalid if construction of the project is not commenced within eighteen (18) months after receipt of the final approval, or if construction of the facility is discontinued for a period of eighteen (18) months, unless Ecology extends the 18-month period upon satisfactorily showing that an extension is justified, pursuant to 40 C.F.R. 52.21(r)(2) and applicable EPA guidance.
25. Final approval of this permit shall not be earlier than the date upon which the EPA notified Ecology that the EPA has satisfied its obligations, if any, under Section 7 of the Endangered Species Act 16 U.S.C. § 1531 et seq., 50 C.F.R. part 402, Subpart B (Consultation Procedures) and Section 305(b)(2) of the Magnuson-Stevens Fishery and Conservation Act 16 U.S.C. § 1801 et seq., 50 CFR Part 600 Subpart K (EFH Coordination, Consultation, and Recommendations).

Reviewed by:

Robert C. Burmark
Robert C. Burmark, P.E.
Science and Engineering Section
Washington State Department of Ecology

8/25/2011
Date



Approved by:

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

8/22/11
Date

Ecology was notified by EPA that the EPA has satisfied its obligations under the Endangered Species and Magnuson-Stevens Act on:

4/11/05
Date of EPA Notification

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

APPENDIX B

Emission limits:

Emissions	Cat Gas Desulfurizer Feed Heater	FCCU & CO Boiler	SRU
NO _x	17 ppmdv & 5.1 tpy	127 ppmdv & 308.10 tpy	42.2 ppmdv & 9.88 tpy
CO	0.0842 lb/MMBtu & 14.4 tpy	500 ppmdv (1-hr) 100 ppmdv (365-day)	57.1 ppmdv & 8.3 tpy
PM ₁₀	--	0.50 lb/1000 lb coke burned**	--

**As per Consent Decree, 0.8 lb/1000 lb will be the emission standard between January 27, 2005, and the date that COPC demonstrates compliance with the 0.50 lb/1000 lb coke burned, but no later than June 30, 2007.

