



*rec'd
draft 12/1/2011*

Bradley C. Thomas
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December 1, 2011

Hand delivered to USEPA Region 10, Seattle

Richard Albright, Director
Office of Air, Waste and Toxics, M/S AWT-107
U.S. EPA Region 10 Suite 900
1200 Sixth Avenue
Seattle, WA 98101

Subject: ConocoPhillips Chukchi Sea, Devils Paw Exploration Air Permit Application

Dear Mr. Albright:

Enclosed with this letter is ConocoPhillips Company's (COP) Title V permit application for its Chukchi Sea exploration project. This application replaces the application submitted on February 12, 2010. This application consists of:

- Volume I: Regulated source descriptions, project emissions, and other information required by 40 CFR Part 71, including the requisite forms;
- Volume II: Ambient air quality impact analysis; and
- Volume III: Weather Research and Forecasting (WRF) model evaluations

Emission fees of \$12,130.31 were paid with the February 2010 application submittal and, pursuant to our conversations with Region 10 staff, are to be applied to this application. The principal reason for this is that those fees cover expected project emissions and those emissions have not yet occurred. In this revised application, we are projecting slightly increased emissions so an additional check of \$663.82 was mailed to the EPA lockbox¹ On November 30, 2011. Copies of both checks are enclosed with this application. We very much look forward to working with your office as EPA develops a draft Title V permit over the next few months. Below are highlighted some important permit application elements that we are prepared to discuss with you further.

Part 71 Permit Application

ConocoPhillips Company (COP) is applying for a Part 71 operating permit. This exploration project is very limited and focused in nature. Emissions from the project are low enough that EPA can cap potential emissions at levels below Prevention of Significant Deterioration (PSD) major source thresholds. COP expects to drill only one or two wells in the limited area of the Devil's Paw prospect within a period of 100 days. To limit emissions further during this short

¹ US Environmental Protection Agency
c/o US Bank Government Lockbox 979078
USEPA FOIA and Misc Payments
Mail Station SL MO C2GL
1005 Convention Plaza
Saint Louis, MO 63101-1200

ConocoPhillips Company
Chukchi Sea Part 71 Application

project, this application contains four owner requested limits, as well. If, as a result of the first season's efforts, COP decides to pursue well appraisal and delineation, COP plans to maintain compliance with the Part 71 permit issued pursuant to this application.

The Application Demonstrates Compliance with NAAQS at State Seaward Boundary

Clean Air Act Section 328 and EPA's OCS rules require a demonstration of compliance with the National Ambient Air Quality Standards (NAAQS) at the state seaward boundary (i.e., 3 miles offshore). In Volume II of this application, this compliance demonstration is presented. All COP air quality impacts are below the significant impact levels, as defined in the PSD regulations.

EPA has requested cumulative impact modeling at the state seaward boundary, and that modeling is presented as an appendix to Volume II of this application. EPA has also requested a modeling demonstration at the inner-outer OCS boundary (i.e., 28 miles offshore). That modeling is presented under separate cover, but simultaneous with this application.

Ambient Air Quality Impact Analysis

The application's ambient air quality impact analysis is based on the use of the guideline model CALPUFF and meteorology generated from the Weather Research and Forecasting (WRF) model. Over the past several months, COP has been engaged with Region 10's modeling staff in the development of the WRF meteorology and to set model performance evaluation standards. As a result, we believe the modeling is robust. The model output is in Volume II of the application and the WRF evaluations are contained in Volume III.

OCS Source

Based on previous discussions with EPA, the application assumes the jackup rig becomes an "OCS Source" at the time the rig clears any influence from the sea (i.e., when it reaches zero air gap). At this point, the hull of the jackup is no longer floating or subject to floating.

Applicable Requirements

A Title V permit (i.e., a Part 71 permit) captures all applicable requirements, but does not create any new requirements beyond those enumerated in the 40 CFR 71.2 definition of "applicable requirement." In this application, we have identified the national ambient air quality standards as applicable requirements. The NAAQS are applicable requirements for a temporary source pursuant to Section 504(e) of the Clean Air Act as well as 40 CFR 71.2.

In addition to these applicable requirements, COP proposes and asks EPA to impose owner requested limits as follows:

- Owner requested limits on the annual emissions of nitrogen oxides, carbon monoxide, and greenhouse gases to cap emissions below PSD major source thresholds.
- Requiring the use of selective catalytic reduction on certain jackup rig and icebreaker vessel engines;
- Mandating the use of ULSD in the project; and
- Setting a 1,000 hour per year limit on each icebreaker's operation while within 25 miles of the jackup rig.

We acknowledge that there is debate about the applicability to this project of stationary source standards such as the new source performance standards (NSPS) and the standards promulgated under Section 129 of the Clean Air Act. COP maintains that there are no regulated stationary sources involved in this project. Regarding engines, we submitted detailed comments

in response to the August 2009 draft Shell Chukchi Sea Exploration permit in which we set out why we do not believe any stationary engines are involved in Shell's exploration program or our own program. At EPA's request, however, we are including in Section 7 of Volume I the stationary source standards that would apply if the referenced equipment qualified as stationary sources. We look forward to continuing our work with EPA on this complex issue as the application of stationary source standards could be challenging for temporary and, often, foreign-flagged vessels.

Please do not hesitate to contact me to discuss this application.

Sincerely,



Bradley C. Thomas
Senior Environmental Scientist

cc: Doug Hardesty, USEPA, Region 10 (US Mail)
Herman Wong, USEPA, Region 10
Rob Elleman, USEPA, Region 10
Emma Pokon, North Slope Borough (US Mail)
John Kuterbach, Alaska Department of Environmental Conservation (US Mail)



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1601 Prospect Parkway
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970-493-8878 tel
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December 2, 2011

Doug Hardesty
EPA R10-Idaho Operations Office
1435 North Orchard
Boise, Idaho 83706
(208) 378-5759

Subject: Digital Files Supporting Volume II of ConocoPhillips Company's Title V Permit Application

Dear Doug,

Enclosed is a hard drive containing digital files supporting Volume II (Ambient Air Quality Impact Analysis) of ConocoPhillips Company's (COP) Title V permit application for its Chukchi Sea exploration project. That application was submitted to Richard Albright, Director Office of Air, Waste and Toxics on December 1, 2011.

An identical hard drive has been sent to Mahbubul Islam (USEPA Region 10) for his records. Please do not hesitate to contact me if you have questions about the contents of the hard drive or if you have trouble extracting the information.

Yours sincerely,

Tom Damiana
Project Manager
970.530.3465
thomas.damiana@aecom.com

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Air Quality Meteorologist/Modeler
978.905.2297
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cc: Mahbubul Islam, USEPA, Region 10
Brad Thomas, ConocoPhillips Company



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December 2, 2011

Mahbubul Islam
Manager, Environmental Characterization Unit
Mail code: OEA-095
US EPA Region 10
1200 Sixth Ave, Suite 900
Seattle, WA, 98101

Subject: Digital Files Supporting Volume II of ConocoPhillips Company's Title V Permit Application

Dear Mahbubul,

Enclosed is a hard drive containing digital files supporting Volume II (Ambient Air Quality Impact Analysis) of ConocoPhillips Company's (COP) Title V permit application for its Chukchi Sea exploration project. That application was submitted to Richard Albright, Director Office of Air, Waste and Toxics on December 1, 2011.

An identical hard drive has been sent to Doug Hardesty (USEPA Region 10) for his records. I would appreciate it if you would let Herman Wong and Rob Elleman know you have this hard drive. Please do not hesitate to contact me if you have questions about the contents of the hard drive or if you have trouble extracting the information.

Yours sincerely,

Tom Damiana
Project Manager
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cc: Doug Hardesty, USEPA, Region 10
Brad Thomas, ConocoPhillips Company