

William W. Grygar II
Director, EHS Gulf of Mexico
Anadarko Petroleum Corporation
1201 Lake Robbins Drive
The Woodlands, TX 77380

Subject: Modification of Phoenix Prospect Drilling Project
OCS Permit OCS-EPA-R4005-M2

Dear Mr. Grygar:

This letter is in response to your request for a minor permit modification for the Anadarko Petroleum Corporation (Anadarko) Phoenix Prospect Drilling Project, which was received by the U.S. Environmental Protection Agency on November 29, 2012. EPA previously issued Anadarko an Outer Continental Shelf (OCS) air quality permit on June 13, 2011, and a minor permit modification on October 30, 2012, to construct and operate a temporary, exploratory drilling operation in the Lloyd Ridge lease area in the Gulf of Mexico, approximately 160 miles southeast of the mouth of the Mississippi River and 200 miles southwest of Panama City, Florida. The operation is for a single exploratory well and is currently subject to the Prevention of Significant Deterioration (PSD) requirements for nitrogen oxides (NO_x).

Anadarko requests the permit be amended to include four escape capsules, one fast rescue craft, and one Remotely Operated Vehicle emergency engine. These units have minimal emissions, as they are designed for emergency use and will only be operated for safety drills and maintenance checks (i.e. for 1-4 hours over the project duration). The application identified three existing dust collectors and two existing helicopter fuel storage tanks that were not included in the original permit application. The proposal also requests that painting and water blasting operations for maintenance activities be authorized.

The drilling activity will use the previously permitted drill ship, *Discoverer Spirit*, and associated work boats. Anadarko is not requesting any increases in NO_x emissions or changes to currently permitted emissions. These additional activities are projected to result in a combined project increase of approximately 2.8 tons of particulate matter (PM/PM₁₀/PM_{2.5}), 1.9 tons of volatile organic compounds, and 1.4 tons of hazardous air pollutants. The applicant provided emission calculations, an air quality impact screening analysis reflecting the additional units and operations, and a review of potentially applicable requirements and control technology. The application also included title V part 71 permit forms. The EPA has confirmed that Anadarko included these forms as a convenience for documentation purposes, absent PSD/OCS permit application forms, and does not intend to apply for a title V permit at this time.

The EPA has reviewed the request submitted by Anadarko for the addition of the emergency equipment, maintenance activities, and other small emissions units onboard the *Discoverer Spirit* drill ship. The addition of these activities is not a major modification and does not trigger PSD review for any NSR regulated pollutants. The source continues to be subject to PSD requirements only for NO_x emissions and the emissions increases of the other NSR regulated pollutants remain de minimis, i.e. below the PSD

significant emission rates. EPA has determined that the requested revisions do not constitute a significant change from the original permit nor a change in the environmental impact of the project.

After consideration of the request submitted by Anadarko and pertinent federal statutes and regulations, EPA hereby grants these requests pursuant to the terms and conditions of the revised permit, OCS-EPA-R4005-M2, for the Phoenix Prospect Drilling Project. EPA has modified the permit to include NO_x emission units subject to regulations and assumptions included in the permit application. EPA also made minor administrative amendments to the permit, including a revision to the operating limiting for the wire line diesel engines, which has been corrected to apply to each unit separately. This corrects an administrative error in the original permit and is consistent with the original application. These changes can be identified in the enclosed mark-up version.

In accordance with the provisions of Section 328 of the Clean Air Act (CAA), 42 U.S.C. § 7627, and the implementing Outer Continental Shelf (OCS) Air Regulations at Title 40 Code of Federal Regulation (CFR) part 55, the EPA has revised the permit to include the minor amendments. The revised permit, OCS-EPA-R4005-M2, is enclosed. If you have any questions, please contact Ms. Eva Land at 404-562-9103, or Ms. Kelly Fortin at 404-562-9117.

Sincerely,

Gregg M. Worley
Chief
Air Permits Section

Enclosures

cc: Ms. Katie Maness, Anadarko Petroleum Corporation
Ms. Sara Carlso, Anadarko Petroleum Corporation
Mr. William Bruscano, Trinity Consultants
Mr. Rahul Pendse, Trinity Consultants