



United States Department of the Interior



MINERALS MANAGEMENT SERVICE
Alaska Outer Continental Shelf Region
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FEB 12 2010

EPA Region 10
Shell Chukchi OCS Air Permit
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Seattle, WA 98101-3140
Fax: 206-553-0110
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Subject: *New Modified Air Quality Permit Proposed for Shell to Operate the Frontier Discoverer Drillship in the Chukchi Sea, Alaska - MMS comments*

On October 2, 2009, this office provided you with comments regarding the Air Quality Permit proposed for Shell Gulf of Mexico to operate in the Chukchi Sea, Alaska. We have reviewed the *New Modified Air Quality Permit Proposed for Shell to Operate the Frontier Discoverer Drillship in the Chukchi Sea, Alaska* public-noticed on January 8, 2010. The Minerals Management Service (MMS) is submitting the following comments and responding to specific questions posed in the public notice.

As noted in our original October 2, 2009 comments, we believe that EPA has evaluated the permit on worst case analyses that result in permit terms and restrictions that limit necessary operational flexibility for personnel and environmental safety without obvious benefits to air quality. These restrictions include limits on the location, movement and tethering of support craft to the Discoverer, and are itemized in our comments below.

1. Requirement N. Icebreaker #1 Requirement N.7. *"Operating Location and Distance from Discoverer. Except when transferring crew and supplies to and from the Discoverer, Icebreaker #1 shall operate outside of a cone with its apex 150 meters behind the stern of the Discoverer, plus and minus 20 degrees from the centerline of the Discoverer, and extending 4800 meters beyond the bow of the Discoverer."*

This requirement sets a distance and direction prohibition between Icebreaker #1 and the Discoverer. We assume the restrictions are to account for a worst case pollutant modeling concentration that could occur if the wind aligned with the two vessels along their major axes. However, this may be a rare event (wind direction along the major axes for both vessels). Safe vessel operation requires the flexibility to evaluate on-scene circumstances which might affect the safe operation of the vessels associated with the operation. Ice and weather conditions and ice management operations may require that

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the location of the associated fleet vessels be organized in such a way as to enhance safety that does not conform to this generic separation scenario. The permit should clarify and accommodate such emergency configurations.

2. Requirement N. 8 *"Attachment to Discoverer. At no time shall Icebreaker #1 be attached to the Discoverer."*

As stated, this requirement does not take into account maintaining the safety of these vessels in emergency situations, including transferring crew and supplies in emergency situations. The permit should clarify and accommodate such emergency situations. While the permit provides for notification of EPA if this condition is not met, the permit does not give direction on when it might be allowed.

3. Requirement O. Icebreaker #2 Requirement O.7. *"Operating Distance from Discoverer. Except when transferring crew and supplies to and from the Discoverer, or as provided for in Conditions O.7 and O.8, Icebreaker #2 shall operate outside of a cone with its apex 150 meters behind the stern of the Discoverer, plus and minus 20 degrees from the centerline of the Discoverer, and extending 1000 meters beyond the bow of the Discoverer."*

See comments above for N.7 and N.8.

4. Requirement O.10. *"Attachment to Discoverer. At no time shall Icebreaker #2 be attached to the Discoverer."*

See comments above for N.7 and N.8.

5. Q. Oil Spill Response Fleet Requirement Q.5. *"Operating Location. Except for transport of crew and supplies to and from the Discoverer or when responding to an oil spill, the oil spill response fleet shall operate at a location that is downwind from the Discoverer."*

It is not at all clear what air quality purpose this serves, and would seem to maximize air quality concentrations from the *Discoverer* and the response fleet. If there is not an air quality purpose, this requirement should be deleted. MMS has the jurisdiction for oil spill response plans for OCS facilities (30 CFR 254). If there is an air quality purpose, we request that you consult with us with regard to effects on spill response plans.

6. Requirement Q.6. *"Attachment to Discoverer. At no time shall the Nanuq or any of the Kvichak work boats be attached to the Discoverer."*

See comments above for N.7 and N.8.

7. Requirement R. Post-Construction Ambient Air Quality Monitoring
 1. *"Ambient Air Quality Monitoring Station. The permittee shall install, operate and maintain a Federal Reference Method or Federal Equivalent Method ambient air quality monitoring station to measure and record PM_{2.5} concentration data..."*

2. *"Meteorological Monitoring Station. The permittee shall install, operate and maintain a meteorological monitoring station to monitor and record data..."*

3. *"Ambient Air Quality and Meteorological Monitoring Plan. At least 60 days prior to the commencement of the data collection, the permittee shall submit to EPA for approval an ambient air quality and meteorological monitoring plan for the post-construction monitoring requirements specified in Conditions R. 1 and R.2..."*

The goal of monitoring is to get a representation of the meteorological and ambient air quality conditions at the site of the activity. Because exploration activities are temporary (lasting months, and not operating year round), full year data collection offshore will be difficult to collect until permanent facilities exist on which to station year-round equipment. We encourage EPA to consider correlation of onshore data with available data collected offshore during the exploration timeframes. This is especially meaningful if background concentrations are being used to add to modeled concentrations offshore. Correlation of onshore ambient air quality monitoring data could be done with the onshore wind direction, to get estimates of the offshore background.

The MMS has an ongoing study titled *Beaufort/Chukchi Seas Mesoscale Meteorology Modeling Study Phase II (AK-06-05)* by the University of Alaska Fairbanks, Geophysical Institute. The study goal is to achieve accurate simulation of the Beaufort and Chukchi Seas surface wind and associated mesoscale meteorology using available observational data from 1979-2009. The results from this study will aid in correlating onshore and offshore data.

The public notice solicited comments on two specific aspects of the permit: 1) suitability of the ISC3-Prime modeling system, and 2) adopting an alternative definition of an "OCS source" to consider the Discoverer to be an OCS source when it is sufficiently secure and stable to commence exploration at a drill site. The MMS offers the following recommendations:

1. **Suitability of the ISC3-Prime Modeling System:** The MMS is very familiar with the ISC3-Prime Modeling System. The MMS finds that the ISC3-Prime modeling system as applied to this permit application is conservative and is more than sufficient to support this permit action and findings.
2. **Alternative definition of an OCS Source:** The MMS recommends EPA adopt the alternative definition for an OCS source to include "when it is sufficiently secure and stable to commence exploration at a drill site." This definition would be consistent with the MMS regulatory definitions and practices that MMS uses for administering its air quality authorities on the OCS. This office provided written comments on December 16, 2009, from the Regional Supervisor, Field Operations, to Ms. Julie Vergeront, Office of the Regional Counsel, describing MMS regulatory definition of an OCS source and administration of MMS air quality and anchor management activities. Another copy of that letter is enclosed.

The MMS believes that EPA's definition of an OCS source - based on a single anchor placement - conflicts with conventional marine operating practices. EPA should consider

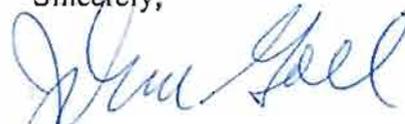
using the jurisdictional distinction about an OCS facility described in the December 16, 2009 letter.

Adopting the revised definition would also clarify permit requirement D.I. This requirement currently prohibits the use of the main propulsion unit on the *Discoverer* once the vessel is an OCS source. This restriction, when applied to the *Discoverer* when only one anchor has been set, significantly impacts the safety of personnel and the *Discoverer*.

The MMS also understands that EPA Region 4 recently formed a working group with the MMS Gulf of Mexico Region regarding implementation of the PSD permit program in the eastern Gulf of Mexico and is looking to clarify many of the policy and administrative aspect of the PSD program for OCS facilities that have been involved in the Chukchi Sea permit. MMS looks forward to continued coordination between our offices and development of consistent regulatory standards among OCS areas.

If you have any questions, please contact Mr. Jeff Walker at (907) 334-5300.

Sincerely,



John Goll
Regional Director

Enclosure



United States Department of the Interior



MINERALS MANAGEMENT SERVICE

Alaska Outer Continental Shelf Region

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DEC 16 2009

Julie A. Vergeront
Office of Regional Counsel
U.S. Environmental Protection Agency
Region 10
1200 Sixth Avenue, ORC-158
Seattle, WA 98101-3123

Ms. Vergeront:

In response to your email, I'd like to provide the following information which I hope will assist EPA in completing Shell's Prevention of Significant Deterioration (PSD) permits for the Beaufort and Chukchi Seas. Specifically you requested MMS's view on when the Discoverer is "regulated or authorized under Outer Continental Shelf Lands Act (OCSLA)" in connection with the anchoring process.

MMS implementing regulations define a facility at 30 CFR 250.105. The definition of a facility means all installations or devices *permanently or temporarily attached to the seabed* (emphasis added). The same standard is used for administering MMS authorities for both air emissions (30 CFR 250.303) and for platform verification (30 CFR 250.900). We understand the EPA has the same standard under 40 CFR 55.2 for definition of an OCS Source.

Unless and until all anchors have been set, the Alaska Region does not consider the Discoverer Mobile Offshore Drilling Unit (MODU) to be an OCS facility "permanently or temporarily attached to the seabed." Until the Discoverer is permanently or temporarily attached to the seabed, the Discoverer is operated under, controlled by and subject to maritime laws and operating practices. During anchor deployment operations, the Discoverer is under the direction of the vessel master, who has ultimate responsibility under maritime law for the safety of the drillship and crew and the jurisdiction of the U.S. Coast Guard.

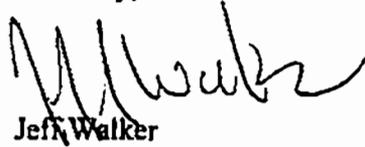
The delineation of responsibilities between the MMS and USCG for anchoring process is further clarified under a 1999 Memorandum of Agreement (MOA) between the MMS and USCG (<http://www.mms.gov/PDFs/cgmoufnlFinalMOA-MMSUSCG-OCS01Sep30-04.pdf>) The MOA delineates jurisdictional responsibilities for fixed facilities, floating facilities and MODU. The Discoverer is both a floating facility and a MODU. Under the MOA, the Alaska Region has no jurisdiction for the anchor deployment operations for the Discoverer, as either a MODU or a floating facility. The Alaska Region would exercise regulatory jurisdiction for a site specific mooring analysis for station-keeping only after the Discoverer has been securely and substantially moored so that it cannot be moved without a special effort.

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In addition, this office notes that MMS is not the agency responsible for issuing the permit to anchor the Discoverer. The U.S. Army Corps of Engineers (CORPS) authorizes placement of structures under the Rivers and Harbor Act. The CORPS issued findings that both Shell's Chukchi and Beaufort Sea exploration activities are authorized by the Nationwide Permit (NWP) No. 8, Oil and Gas Structures on the Outer Continental Shelf.

Please let me know if this responds to your request.

Sincerely,

A handwritten signature in black ink, appearing to read "Jeff Walker". The signature is fluid and cursive, with the first name "Jeff" and last name "Walker" clearly distinguishable.

Jeff Walker

Field Operations, Regional Supervisor

cc: Susan Childs, Shell
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