

February 28, 2012



Mr. James H. Lecky  
Director, Office of Protected Resources  
National Marine Fisheries Service  
1315 East-West Highway  
Silver Spring, MD 20910-3225

**RE: National Marine Fisheries Service Draft Environmental Impact Statement for the Effects of Oil and Gas Activities in the Arctic Ocean (RIN 0648-XA885)**

Statoil USA E&P Inc. (Statoil) appreciates the opportunity to provide these comments for your consideration. On December 30, 2011, the National Marine Fisheries Service (NMFS) released its Draft Environmental Impact Statement for the Effects of Oil and Gas Activities in the Arctic Ocean (DEIS) for public review and comment. 76 Fed. Reg. 82275 (December 30, 2011)<sup>1</sup>. The Bureau of Ocean Energy Management (BOEM) is named as a cooperating agency on the DEIS.

**I. Overview.**

Statoil and its affiliates comprise an international energy enterprise with operations in thirty-six countries, including in offshore waters in the United States. Statoil is the largest offshore operator in the world in waters in excess of one hundred (100) meters, and we are committed to contributing to the world's energy needs in a responsible manner, developing new technology to accomplish that goal, and creating innovative solutions to problems in all facets of our business. With over 35 years of experience conducting oil and gas operations on the Norwegian Continental Shelf and in deepwater environments around the world, we respect the need to balance operational efficiency with environmental protection.

In 2008, at Lease Sale 193, Statoil acquired 16 leases which it operates in the Chukchi Sea. Statoil is completing its evaluation of the 3D seismic data it has recently acquired on these leases and plans to conduct exploratory drilling during the 2014 summer exploration season. Statoil also owns a working interest in 50 additional Chukchi Sea leases operated by ConocoPhillips Alaska, Inc. (CPAI). CPAI plans to conduct exploratory drilling during the 2014 summer exploration season as well. Thus, Statoil's interests will be affected by any actions NMFS or BOEM might take based on this DEIS.

Statoil is a member of the Alaska Oil and Gas Association (AOGA). Statoil supports and reiterates the comments submitted by CPAI and AOGA.

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<sup>1</sup> NMFS extended the comment period to February 28, 2012. 77 Fed. Reg. 2513 (January 18, 2012).

Statoil has many concerns with the DEIS and highlights only a few of those concerns in this letter. Statoil's comments are focused only on the Chukchi Sea.

## **II. An EIS is Neither Required or Appropriate under These Circumstances.**

An important threshold question is whether an EIS is required or otherwise appropriate under these circumstances. Given the fact that BOEM recently completed a supplemental EIS for the Chukchi, we fail to appreciate the legal or policy reasons to prepare another EIS analyzing similar issues.

The National Environmental Policy Act (NEPA), 42 U.S.C. 4321 *et seq.* requires the preparation of an environmental impact statement (EIS) for any federal action that may significantly affect the human environment. Currently there is no concrete proposal before the NMFS that requires preparation of an EIS. As NMFS is aware, the Marine Mammal Protection Act (MMPA) limits NMFS authorizations to those that will have a "negligible impact" on affected marine mammals. As a consequence, every historical oil and gas activity considered by NMFS has been appropriately analyzed under an Environmental Assessment (EA) rather than an EIS.

NMFS' stated purpose for the DEIS is to analyze the potential impacts from issuance of incidental take authorizations (ITA) under the MMPA for unspecified "G&G permitted activities, ancillary activities and exploratory drilling activities in the Beaufort and Chukchi seas," and the BOEM's issuance of permits for G&G permits and ancillary activities in both seas. DEIS at 1-9. Although these types of activities will be occurring in coming years, the agency does not have before it application requests to justify the preparation of an EIS. Nor is NMFS, to our knowledge, contemplating the issuance of an incidental take regulation (ITR). From our perspective, the draft EIS appears to be designed for a hypothetical ITR even though, to our knowledge, no such regulation has been, or is being, considered by either industry or NMFS.

## **III. The Range of Alternatives is Fundamentally Flawed.**

Statoil's most significant concern relates to the range of alternatives, which we believe is so fundamentally flawed that it must be completely re-worked from the ground up. Under NEPA, the range alternatives analyzed by the agency must be reasonable in light of the purpose and need of the DEIS. Here, the range of alternatives is, on its face, unreasonable, because the alternatives contemplate an unrealistically high level of activity for seismic surveys and does not recognize the likelihood of having three exploration drilling programs in a given year. The root cause of the deficiency in the alternatives is NMFS' reliance on a generic set of assumptions concerning anticipated levels of activity. This fundamental flaw carries over into the alternatives which are premised on analysis of a range of scenarios which are unlikely to occur (in the case of seismic) or which ignore the scope of activities which are likely to occur (in the case of exploration drilling).

The DEIS analyzes five alternatives – the requisite no action alternative, and four other alternatives. Alternative 2 contemplates up to three 2D/3D seismic or CSEM surveys

per year with one exploratory drilling program. The mitigation measures included in this alternative are the “standard” mitigation measures along with the possible additional mitigation measures that are not clearly defined. Alternative 3 contemplates up to five seismic or CSEM surveys with two exploratory drilling programs. The mitigation measures are identical to those in Alternative 2. Alternative 4 is the same as alternative 3, but it would also include timing restrictions and buffer zones for listed areas. Of particular concern to Statoil are those closures and restrictions tied to the Hanna Shoal. Finally, Alternative 5 is again the same as three, but it then contemplates additional mitigation measures that “focus on the use of alternative technologies.”

The level of seismic activity contemplated under each of the alternatives is significantly overstated. From our understanding of the oil and gas industries’ plans in the Chukchi Sea, it is unlikely that any additional surveys will be conducted in the next two to three years. Accordingly, the alternatives scenario should be substantially revised to account for a realistic level of seismic activity.

Our most significant concern relates to the assumptions for exploration drilling. Six companies own leases in the Chukchi Sea – Statoil, Shell, ConocoPhillips, ENI, IONA, and Repsol, the first three of which are planning to drill exploratory wells within the next several years. By 2014, it is highly probable that there will be one or more seasons in which all three leaseholders would be undertaking drilling operations in the Chukchi Sea. NMFS states that the range of activities used to formulate the alternatives is based on the range of activities for the next five years and on past levels. DEIS at 2-31. However, this is clearly not the case as none of the alternatives encompasses the likelihood of three operators, all of whom currently own leases in the Chukchi Sea, conducting drilling operations simultaneously. The range of alternatives is legally flawed because none of the alternatives address the scenarios that are currently being contemplated and which are most likely to occur. Statoil requests that NMFS completely revise the alternatives to account for the realistic exploration drilling scenarios in the majority of the alternatives

Alternative 5 should be deleted in its entirety. The alternative is identical to alternative 3 with the exception that it includes “alternative technologies” as possible mitigation measures. However, virtually none of the technologies discussed are currently commercially available nor will they be during the time frame of this EIS. For example, on page 2-23, NMFS discusses a number of alternative acoustic source technologies, but as acknowledged in the DEIS, “...none of the systems with the potential to replace augment or replace airguns as a seismic source are currently commercially available.” Similarly, on page 2-24, NMFS sets out a number of technologies in a table – three out of the four listed are not currently commercially available and will not be during the coming five years. Finally, on pages 2-25 through 2-29, NMFS discusses additional technologies. Again, virtually none of these are commercially available now nor will they be in the next five years. Thus, this alternative serves no useful purpose as the additional measures are not available for use and will not be during the time period covered by the EIS.

#### **IV. The DEIS Has Incomplete and Unsupported Conclusions Concerning Impacts in the Hanna Shoal Area.**

Under Alternative 4, NMFS proposes to include a third layer of potential mitigation measures that would involve timing restrictions as well as closure of certain areas. Of particular concern to Statoil are the measures associated with the Hanna Shoal area.

All of Statoil's leases are in close proximity to the Hanna Shoal. NMFS describes the area as one with "high biological productivity; a feeding area for various marine mammals." DEIS at 2-37 but does not provide any citations to support these assertions. Based on this, it appears that NMFS is proposing to close this area to seismic activity and exploration operations during the following time periods – July to August (walrus); late August to early October (gray whales); September 1 to October 15 (no oil and gas operations in Hanna Shoal or the buffer zone except for emergencies). In addition, NMFS is proposing a buffer zone around Hanna Shoal based on prevention of ensonification that is not clearly defined.

After introducing Alternative 4 on page 2-37 of the DEIS, NMFS states that the buffer zone is described in detail in Chapter 3, Sections 3.2.3 and 3.2.4; however neither of these sections contains this information. The former is a discussion of marine and coastal birds, while the latter is a discussion of marine mammals<sup>2</sup>. Without more detailed information regarding the buffer zone, it is difficult to provide comprehensive comments. However, according to studies by JASCO Applied Sciences Ltd., which were carried out in 2010, a 120 dB safety zone with Hanna Shoal as the center would prevent Statoil from exercising its lease rights because a 120dB buffer zone would encompass virtually all of our leases. NMFS does state that "In the event a buffer zone of this size is impractical, a buffer zone avoiding the ensonification of the important habitat above 180 dB could be used." Although this might result in a smaller buffer zone, it could still have a significant negative impact on Statoil's ability to exercise its lease rights depending on how the buffer zone was calculated.

Since the DEIS does not provide any information as to how and why the boundaries of the Hanna Shoal were drawn, it is not possible to meaningfully comment on whether the protection itself is justified and whether it should be further protected by a buffer zone.

More fundamentally, the DEIS lacks any evidence that the Hanna Shoal actually provides support on an annual or consistent basis for important biological productivity and life history functions of the walrus or gray whale. Recent data cited in the DEIS (Clarke et al 2011) supports the fact that the area is not currently commonly used by gray whales, thus undercutting any need for such protection. It goes against the basic underpinnings of NEPA, which requires the use of best available science, to designate an area for protection when the science does not support such a conclusion. Nor can the proposed closures be justified on the basis of mitigating potential impacts to

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<sup>2</sup> The Executive Summary for the DEIS does contain an explanation of what areas might be encompassed by the buffer zone, but this information is not presented in the document itself.

subsistence hunters during the fall bowhead whale hunt as the DEIS acknowledges that the actual hunting grounds are well inshore of Hanna Shoal.

Regarding walrus<sup>3</sup>, movement tracks from walrus tagged by the USGS in 2011 showed no evidence that walrus used the area. Instead, tagged animals used areas closer to the Chukchi sea coast, Ledyard Bay, and offshore areas south of Hanna Shoal. These two years of tagging data (and other data from previous years) suggest that Hanna Shoal may be used heavily by walrus in some years, but it does not support the conclusion that it is an especially important location on an annual basis. Nor is there sufficient information in the DEIS regarding the use of the area by walrus for feeding to justify protection. There appears to be only one page in the entire DEIS where this is even referenced (DEIS at 4-393), and NFMS merely notes that the benthic organisms on which walrus feed occur on or near the Hanna Shoal. There is no discussion of how the assemblage of benthic organisms found at Hanna Shoal is different, and presumably more important, than other locations within the Chukchi Sea such that protection of the area could be justified.

Finally, the DEIS does not contain any discussion of the scientific basis supporting how NMFS created the boundaries of the protection area. As NMFS has not provided the information in the DEIS, no meaningful comments can be offered. NFMS itself completely undercuts any justification for closure based on impacts to walrus when it states: "...none of the data collected to date on walrus reactions to explorations activities indicate that they would be displaced from key areas or resources for more than a few minutes to hours." DEIS at 4-544. Thus, the current science does not support closure of the area for protection of the walrus. Given that NMFS provides no sound scientific justification for the closures or the buffer zone, they should be removed from Alternative 4. Moreover, any additional timing stipulations or other measures that could negatively affect the drilling window for the Chukchi Sea need to be carefully scrutinized. The realistic drilling window for offshore operations in the Arctic is typically 70 – 150 days. Any infringement on this limited time frame could result in insufficient time to complete drilling operations.

## **V. Other Issues.**

The remainder of this comment letter will highlight just a few of the numerous technical errors that we have found in the document. On page 3-34, the sound matrix is wrong. The DEIS incorrectly states that the difference between sound pressure in air and in water is 26dB. It is not - this value is the difference for the reference values. It should be 62dB. See Gausland 2000 and the OGP Report 406 (2008) and DOSIT (<http://www.dosits.org/science/soundsinthesea/air/water>).

Table 3.1-6 is incorrectly cited to Richardson 1995. On page 4-43, NMFS refers to PTS when it should be TTS. TTS is used as a proxy for PTS as there is no documented reference to PTS in marine mammals. On page 4-86, NMFS refers to Richardson 1995

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<sup>3</sup> See <http://alaska.usgs.gov/science/biology/walrus/tracking.html>.

as support for its statements. However, there is more recent information that represents the best available science, and better meets NEPA's mandate to use the best available science. NMFS should revise the document to account for Southall et al's 2007 paper on Effects of Noise on Marine Mammals.

On page 4-94, NMFS states that gas-bubble disease could be a mechanism for strandings in dolphins. However, there is no scientific support for this statement, and in fact, the opposite is true. See, "Investigation of the Potential for Vascular Bubble Formation in Repetitively Diving Dolphin" D.S. Houser *et al* 2007.

Last, under the MMPA, NMFS can only authorize the incidental take of marine mammals if the anticipated effects are expected to have a "negligible impact." A significant deficiency in the DEIS is NMFS' characterization of impacts of various impacts on marine mammals as "moderate" or "minor." By characterizing the impacts on marine mammals from forecasted activities as something other than "negligible," NMFS is creating significant legal risk for later stage permitting activities. The underlying premise that oil and gas activities cause higher than "negligible" impacts is not supported by the science or the agencies' many past actions in permitting Arctic oil and gas activities. Chapter 4 of the DEIS needs to be significantly revised to eliminate the arbitrary factual findings and conclusions and make abundantly clear through a stand-alone discussion the distinction between evaluation of impacts under NEPA and findings required by the MMPA.

## **VI. Conclusion.**

The National Petroleum Council, in its report released in September of 2011, *Prudent Development: Realizing the Potential of North America's Abundant Natural Gas and Oil Resources* stated that access to prospective areas needs to be encouraged by the removal of regulatory uncertainty. This DEIS does just the opposite. It will not be a document that can be used to support analysis of future exploration drilling activities because, as noted above, the alternatives analysis does not capture the range of activities that are likely to occur. If finalized in anything resembling its current form, the EIS will only serve to create more uncertainty and will likely fuel needless litigation. We are highly skeptical that the current DEIS can be revised to fully address the many concerns raised by Statoil, CPAI and AOGA. Hence, we recommend that NMFS abandon this EIS and continue with its past practice of evaluating the impacts of oil & gas activities in the Arctic through project-specific NEPA analyses.

Sincerely,

  
Bill Moore  
Land Manager