



# MARINE MAMMAL COMMISSION

6 December 2010

Mr. John T. Goll, Regional Director  
Alaska Outer Continental Shelf Region  
Bureau of Ocean Energy Management, Regulation, and Enforcement  
3801 Centerpoint Drive, Suite 500  
Anchorage, Alaska 99503-5820

Dear Mr. Goll:

The Marine Mammal Commission, in consultation with its Committee of Scientific Advisors on Marine Mammals, has reviewed the Draft Supplemental Environmental Impact Statement for the Chukchi Sea Planning Area Oil and Gas Lease Sale 193. The Bureau prepared the draft statement as a supplement to its 2007 Final Environmental Impact Statement for Oil and Gas Lease Sale 193 and Seismic Surveying Activities in the Chukchi Sea. The Commission also has reviewed the Bureau's 5 October 2010 *Federal Register* notice (75 Fed. Reg. 61511) requesting comments. When appropriate, the Commission will comment in detail on site-specific activities associated with oil and gas operations in the Chukchi Sea Planning Area. For now, the Commission offers the following recommendations and rationale.

## RECOMMENDATIONS

The Marine Mammal Commission recommends that the Bureau of Ocean Energy Management, Regulation, and Enforcement—

- consider and adopt a slow, phased approach to oil and gas development in the Chukchi Sea Planning Area by limiting initial operations to one or two active lease areas until the Bureau, industry, and all responsible parties have demonstrated their ability to conduct oil and gas operations safely in this region, have developed means for responding to oil spills in icy waters, and have collected needed baseline information on the marine wildlife and habitat at risk from such operations;
- strengthen its supplemental environmental impact statement by providing a more complete description of the added risks associated with natural gas extraction, including a large-scale spill or loss of well control, prolonged use of platforms in the harsh Arctic environment, and construction and maintenance of the proposed gas pipeline;
- work with other agencies with related responsibilities, the oil and gas industry, conservation organizations, and other stakeholders to develop standards and seek resources for baseline research and monitoring in areas under consideration for oil and gas development, including the Chukchi Sea Planning Area; such standards must take into account the rapidly changing conditions in the Arctic; and
- work with the Department of Energy and related agencies to develop a national energy policy that will reduce the environmental risks being imposed by the nation's current dependence on oil and gas for energy.

## **RATIONALE**

The purpose of an environmental impact statement prepared under the National Environmental Policy Act is to inform decision-makers and the public about the environmental risks associated with various alternative approaches to a proposed federal action, including a no-action alternative. From the Commission's perspective, the three main concerns or issues associated with oil and gas development in the Chukchi Sea Planning Area are (1) a major spill that exposes the Chukchi and Beaufort Sea ecosystems to large amounts of crude oil, (2) a long-term, cumulative degradation of those ecosystems to the extent that species (including some that are threatened or in danger of extinction) abandon preferred habitat or are otherwise adversely affected by habitat degradation, and (3) a shift in the distribution of wildlife, including marine mammals, such that they are less readily available to Alaska Natives for subsistence. Whether and to what extent these concerns are realized in the Chukchi Sea may well depend on the spatial and temporal pattern of oil and gas development in the areas included in lease sale 193.

After reviewing the subject documents, the Commission believes that the most environmentally cautious way to manage oil and gas development in the Chukchi Sea is through a slow, phased approach that initially limits the amount of oil and gas development to one or two active lease areas until the responsible agencies have collected essential baseline information on the wildlife and habitat in the Chukchi Sea Planning area, the industry has demonstrated its ability to produce oil and gas safely in such a harsh environment, and the agencies and industry together have developed more reliable means to mitigate and monitor the ever-present risks and respond effectively to a large-scale accident. Such an approach would allow the Secretary of the Interior to pursue oil and gas development as required under the Outer Continental Shelf Lands Act but would balance that development against environmental risk by proceeding slowly and cautiously.

The coastal-offshore distinction that forms the basis for the alternatives reflects a continuum of risks from oil and gas operations, including—

- the propensity for wildlife and habitat disturbance during exploratory drilling, construction, and production;
- the likelihood of oil from a major spill contacting wildlife (marine mammals, seabirds, fish, invertebrates) and habitat, including polynyas and leads off the northwestern coast of Alaska and productive benthic communities located offshore;
- the nature and degree of weathering of spilled oil before it reaches particularly sensitive areas and, therefore, the nature of the risks that weathered oil poses to those areas or the wildlife dependent upon them;
- the potential for disruption of subsistence hunting;
- the length of oil and gas pipelines from platforms to shore and the implications for a pipeline accident involving oil, gas, or both; and
- the ability of industry, the Coast Guard, and others to respond to a spill.

These and other considerations all pertain to the nature and extent of risk from oil and gas activities to the Chukchi Sea marine ecosystem. Still, the Commission recognizes that the Secretary must balance the environmental risks against our nation's energy needs. To achieve that balance, the

Marine Mammal Commission recommends that the Bureau of Ocean Energy Management, Regulation, and Enforcement consider and adopt a slow, phased approach to oil and gas development in the Chukchi Sea Planning Area by limiting initial operations to one or two active lease areas until the Bureau, industry, and all responsible parties have demonstrated their ability to conduct oil and gas operations safely in this region, have developed means for responding to oil spills in icy waters, and have collected needed baseline information on the marine wildlife and habitat at risk from such operations.

### **The Environmental Impact of Natural Gas Development**

One area where the Commission believes that the Bureau could strengthen the supplemental environmental impact statement is in its description of the risks associated with natural gas development. On this topic, the supplemental impact statement provides little information and then argues that the lack of information is not a concern because any relevant information would not help distinguish between the action alternatives. Here the Commission disagrees with the Bureau for the following reasons. First, if one of the major concerns with regard to oil and gas development is a blowout or loss of well control, then the Bureau should provide a description of the added risk associated with producing both oil and gas during the later stages of oil extraction. How are both oil and gas extracted simultaneously, and how does the extraction of the gas affect the probability of a serious accident? If gas production adds appreciably to the risk of a blowout or loss of well control, then decision-makers should take that added risk into account when determining when and where drilling will be allowed.

Second, what are the added risks associated with the shift from a primary focus on extraction of oil to extraction of gas, which will require extending the life of the platforms for several more decades? Given the harsh conditions in which these platforms are built and maintained, how does the addition of several decades of operation affect the risks of a platform failure?

Third, when and how will the additional pipeline for gas be built and how will that affect the risks to the environment? If the gas pipeline is constructed concurrently with the oil pipeline, does it simply lie inactive for 10 to 20 years before it is used and, if so, how does that affect the integrity of the pipeline and the risk of an accident? If it is constructed just prior to the initiation of gas recovery operations, then the impact statement should account for the additional disturbance caused by the second construction period.

Each of these considerations may not help decision-makers distinguish between the action alternatives, but they do help decision-makers account for the full effects of the proposed operations and thereby distinguish between the no-action and action alternatives. Because the no-action alternative should be considered seriously, the Marine Mammal Commission recommends that the Bureau of Ocean Energy Management, Regulation, and Enforcement strengthen its supplemental environmental impact statement by providing a more complete description of the added risks associated with natural gas extraction, including a large-scale spill or loss of well control, prolonged use of platforms in the harsh Arctic environment, and construction and maintenance of the proposed gas pipeline.

### **Gathering Missing Information**

In general, anticipating and preventing effects on marine mammals from oil and gas operations in the Chukchi Sea requires good knowledge of the species' population status; distribution and movements; ecology, habitat use, and behavior; and vulnerability to other risk factors. Some Arctic marine mammals (e.g., bowhead whales) have been relatively well studied, whereas others are still poorly understood and/or in a state of flux that makes it difficult to characterize their potential vulnerability to the proposed oil and gas operations (e.g., walrus). Therefore, much of the baseline information that is generally deemed essential for assessing (identifying and measuring) changes caused by human activities is lacking. Scientists attempting to assess the effects of the *Exxon Valdez* oil spill found that their analyses were confounded, if not made impossible, by lack of baseline information for some species. Similarly, baseline information for marine mammals in the Gulf of Mexico is proving inadequate for detecting and measuring potentially significant impacts from the Deepwater Horizon oil spill.

The methods for collecting such information exist and the costs of doing so are not exorbitant, particularly when viewed in the context of the billions of dollars involved in oil and gas development. Examples of methods for studying status include surveys or other means (e.g., mark-recapture) of estimating abundance and trends (e.g., Ashjian et al. 2010, George et al. 2004); satellite telemetry for characterizing distribution and movements (e.g., Quakenbush et al. 2010a, Quakenbush et al. 2010b); time-depth recorders, visual and acoustic surveys, and a wide variety of electronic tags for assessing habitat use (e.g., Laidre et al. 2002, Moore et al. 2010a); and observations of feeding animals and investigations of stomach contents for investigating prey and feeding behavior (e.g., Moore et al. 2010b, Lowry et al. 2004). Conducting such studies is certainly a challenge because of the difficulty of working in the Arctic environment, but the methods exist and are being applied. The major limitation has not been scientific or technological; instead, it stems from a failure to commit sufficient resources to these studies in advance of planned oil and gas development. Simply put, the failure to commit the resources needed to conduct such studies undermines our collective efforts to implement a science-based approach as we seek to limit the impacts of human activities on ocean resources.

The Commission has long argued that the industry and regulatory agencies have a responsibility to support the kinds of research needed to investigate the potential effects of oil and gas operations. In fact, the former Minerals Management Service has contributed significantly to marine mammal science over past decades. In recent years, the industry also has contributed significantly to such research. However, the resources provided still fall short of what is needed, and the Commission believes that the Bureau and the industry need to find additional means of supporting essential research. The industry, in particular, should provide more support because the risks stem from their activities and the amounts in question are trivial compared to the annual profits of oil and gas companies. Addressing these risks in a responsible manner should be considered a cost of doing business for this industry.

The Commission believes that the development of a rigorous program of scientific research on the wildlife and habitat in the Chukchi Sea Planning Area is well within our scientific capacity and would require the commitment of only a very small fraction of the total cost of developing and operating oil and gas facilities in this region. With that in mind, the Marine Mammal Commission

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recommends that the Bureau of Ocean Energy Management, Regulation, and Enforcement work with other agencies with related responsibilities, the oil and gas industry, conservation organizations, and other stakeholders to develop standards and seek resources for baseline research and monitoring in areas under consideration for oil and gas development, including the Chukchi Sea Planning Area. Such standards must take into account the rapidly changing conditions in the Arctic. The Commission would be pleased to work with the Bureau to accomplish this goal.

### **The Bureau's Responsibility in Developing a National Energy Policy**

Undoubtedly, oil and gas will continue to be major sources of energy for the United States for decades to come. However, the pattern that we are seeing is that oil and gas operations are shifting into areas where drilling and production impose increasing risks. Such drilling and production may be necessary, not just because of decisions made in the past year or even the past few administrations, but because for decades we as a nation have failed to develop and implement a national energy policy, despite the predictable complications that we are now facing. On a number of occasions, the Marine Mammal Commission has written to the former Minerals Management Service recommending that the Service work with the Department of Energy to develop a national energy policy that, over time, would result in a shift away from our reliance on oil and gas development in high-risk areas. To be sure, such a policy would not provide immediate relief from those risks but should put our nation on a path that reduces the risks faced by future generations. The Bureau and the Department of Energy already may be working on such a policy; if so, it would be useful to engage other agencies and the public to help shape and develop the policy and, particularly, to facilitate its implementation. To reduce the likelihood that future generations are faced with energy challenges similar to or worse than those we are facing now, the Marine Mammal Commission recommends that the Bureau of Ocean Energy Management, Regulation, and Enforcement work with the Department of Energy and related agencies to develop a national energy policy that will reduce the environmental risks being imposed by the nation's current dependence on oil and gas for energy.

The Commission hopes you find these recommendations helpful. Please contact me if you have questions about our recommendations or if we can provide any further assistance.

Sincerely,



Timothy J. Ragen, Ph.D.  
Executive Director

cc: Michael R. Bromwich, Esq.

### **Literature Cited**

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