

### Discussion

The greatest source of uncertainty in our calculations was the probability of an oil spill occurring. The oil spill probability estimates for the Northstar Project were calculated using data for sub-sea pipelines outside of Alaska and outside of the Arctic. These spill probability estimates, therefore, do not reflect conditions that are routinely encountered in the Arctic, such as permafrost, ice gouging, and strudel scour. They may include other conditions unlikely to be encountered in the Arctic, such as damage from anchors and trawl nets. Consequently, we have some uncertainty about oil spill probabilities as presented in the Northstar FEIS. However, if the probability of a spill were actually twice the estimated value, the probability of a spill that will cause a mortality of one or more bears is still low (about 6 percent).

In addition to the results from the risk analysis, anecdotal information supported our determination that any take associated with Northstar will have a negligible impact on the Beaufort Sea polar bear population. This information was based on observations of polar bear aggregations on barrier islands and coastal areas in the Beaufort Sea, which may occur for brief periods in the fall, usually 4 to 6 weeks. The presence and duration of these aggregations are influenced by the presence of sea ice near shore and the availability of marine mammal carcasses, notably bowhead whales from subsistence hunts. In order for any take associated with a Northstar oil spill to have more than a negligible impact on polar bears, an oil spill would have to occur, an aggregation of bears would have to be present, and the spill would have to contact the aggregation. We believe the probability of all these events occurring simultaneously is low, but are not quantified.

We concluded that if an offshore oil spill were to occur during the fall or spring broken-ice periods, a significant impact to polar bears could occur. We also recognize that some of the impact may result from latent effects of the spill on bears themselves or locally through secondary impacts to the environment and its value for feeding, such as foraging or scavenging on oiled seal carcasses. In balancing the level of potential impacts with the probability of occurrence, however, we conclude that the probability of a large-volume spill that would cause latent effects that result in significant polar bear takes is low.

Additionally, because of the small volume of oil associated with onshore

spills, the rapid response system in place to clean up spills, and the protocol available to deter bears away from the affected area for their safety, we concluded that onshore spills would have little impact on the polar bear population. Therefore, the total expected taking of polar bear caused by Industry discharge of oil or waste products into the environment will have no more than a negligible impact on this species.

In making this finding, we are following Congressional direction in balancing the potential for a significant impact with the likelihood of that event occurring. The specific Congressional direction that justifies balancing probabilities with impacts follows:

If potential effects of a specified activity are conjectural or speculative, a finding of negligible impact may be appropriate. A finding of negligible impact may also be appropriate if the probability of occurrence is low but the potential effects may be significant. In this case, the probability of occurrence of impacts must be balanced with the potential severity of harm to the species or stock when determining negligible impact. In applying this balancing test, the Service will thoroughly evaluate the risks involved and the potential impacts on marine mammal populations. Such determination will be made based on the best available scientific information. 53 FR at 8474; accord, 132 Cong. Rec. S 16305 (Oct. 15, 1986).

### Summary of Take Estimate for Pacific Walrus and Polar Bear

#### *Pacific Walrus*

Since walrus are typically not found in the region of Industry activity, the probability is small that Industry activities, such as offshore drilling operations, seismic, and coastal activities, will affect walrus. Walrus observed in the region have typically been lone individuals, further reducing the number of potential takes expected. Only 3 walrus were observed by Industry during its activities between 1994 to 2000. In addition, the majority of walrus hunted by Barrow residents were harvested west of Point Barrow, outside of the area covered by incidental take regulations, while Kaktovik harvested only one walrus. Given this information, no more than a small number of walrus are likely to be taken during the length of this rule. Any takes would most likely be nonlethal.

#### *Polar Bear*

Industry exploration, development, and production operations could potentially disturb polar bears. These

disturbances are expected to be primarily nonlethal, short-term behavioral reactions resulting in displacement with minimal impacts to individuals. Polar bears could be displaced from the immediate area of activity due to noise and vibrations. They could be attracted to sources of noise and vibrations out of curiosity, which could result in human-bear encounters. Denning females with cubs could prematurely abandon their dens due to noise and vibrations produced by certain industrial activities at close distances. Also, noise and vibration from stationary sources could keep females from denning in the vicinity of the source. These disturbances are not expected to affect the rates of recruitment or survival of the Southern Beaufort Sea polar bear population.

Contact with or ingestion of oil could also potentially affect polar bears. Small oil spills are likely to be cleaned up immediately and should have little opportunity to affect polar bears. The probability of a large spill occurring is very small. However, if such a spill were to occur at an offshore oil facility, polar bears could come into contact with oil. The impact of a large spill would depend on the location and size of the spill, environmental factors, and the success of cleanup measures.

The Service estimates that only a small number of polar bear takes will occur during the length of the regulations. These takes are expected to be nonlethal. However, it is possible that a few unintentional lethal takes could occur under low probability circumstances. For example, a scenario of an unintentional lethal take could be a road accident where a vehicle strikes and kills a polar bear.

Based on past LOA monitoring reports, we believe that takes resulting from the interactions between Industry and Pacific walrus and polar bears have had a negligible impact on these species. Additional information, such as recorded subsistence harvest levels and incidental observations of polar bears near shore, suggests that these populations have not been adversely affected. The projected levels of activities during the period covered by the regulations (existing development and production activities, as well as proposed exploratory activities) are similar in scale to previous levels. In addition, current mitigation measures will be kept in place.

### Conclusions

Based on the previous discussion, we make the following findings regarding this action.