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Agency lists science 'gaps' on Arctic drilling

By Dan Joling

ANCHORAGE, Alaska - Decision makers lack key scientific information on what effect oil and gas drilling would have in Arctic offshore waters, according to a report released Thursday that also acknowledges pro- and anti-development sides in the largely undeveloped region are unlikely to agree on what is a science "gap" and what is sufficient.

The wide-ranging report listed specifics, such as the need for basic weather and oceanographic data that could be fed into models in case of a spill. A better understanding of climate change in the region most affected by warming is also needed. And a fundamental biology about ice-dependent species, such as ice seals and walrus, is also lacking, the report said, as is how they would react to industrial sounds.

Interior Secretary Ken Salazar requested the report last year as the Obama administration considered locations and methods for drilling in the Beaufort and Chukchi seas off Alaska's north and northwest coast.

Brenda Pierce, manager of the energy resources program for the U.S. Geological Survey, and one of the report authors, said most people would agree that certain information gaps exist.

"There's been a lot of progress in a lot of that work," she said by phone from her office in Reston, Va. "But I think we're just not as far along as people want to be in the Arctic."

Federal officials estimate Arctic waters hold 26 million barrels of recoverable oil and 130 trillion cubic feet of natural gas. The most ambitious development plans for Alaska waters have come from Shell Oil, which has spent more than $3.5 billion for outer continental shelf drilling, including $2.1 billion for leases in the Chukchi Sea.

The company has drilled no new wells because of court challenges by environmental groups or its inability to obtain permits, but it hopes to receive permission during the summer open water season in 2012.

Drilling opponents have been waiting for the USGS report and hailed it Thursday as evidence that Arctic waters are not ready for large-scale industry.

"There are huge science gaps remaining regarding the Arctic ecosystem and how that ecosystem could be affected by oil development," said Brendan Cummings of the Center for Biological Development. "The obvious and rational policy response would be to fill those science gaps before even considering oil development in the region."

Jessica Ennis, of Earthjustice, said the Arctic Ocean remains one of the least understood regions in the world.

"Despite missing information about seemingly simple information like species counts of marine mammals and information about tidal systems and currents, the oil industry is looking to leap into oil drilling in these remote waters," she said.

Shell spokesman Curtis Smith said the report "goes a long way in validating what we have believed all along: that a significant scientific record exists in the Arctic and that we are well-positioned to add to it.

"The fact that Shell is adding multiple years of site-specific, comprehensive studies to the existing record should give the public confidence that we are well-positioned to explore the Arctic in an environmentally responsible way. At the same time, we will continue to fortify the extensive scientific record that has been documented in the USGS report," Smith said.

Shell officials contend the company can handle challenges presented in Arctic offshore drilling and that it's unfair to compare high pressure, deep-water exploration in the Gulf of Mexico, the site of the BP-Macondo disaster last year, with wells contemplated in relatively shallow Arctic waters. They have vigorously defended their ability to cap blowouts and to contain and clean up spilled oil.

Pierce noted the varying conditions of the northern waters even seasonally, depending on whether ice is melting or freezing. Not enough is known about whether bacteria in the cold water might help to consume spilled oil, as happened in the Gulf. The report contains a long section on burning spilled oil. Questions remain, she said.

More needs to be done for most people to be comfortable about drilling in the Arctic, Pierce said.

Climate change makes the accumulation of information a moving target, she said.

"We may know something now, but how will climate change that, whether it be storminess or oceanographic patterns or waves?" Pierce asked.

Salazar said in a statement the study will help make decisions.

"This a frontier area with harsh weather conditions as well as unique fish and wildlife resources that Alaska's indigenous people rely on for subsistence," he said. "To make responsible decisions, we need to understand the environmental and social consequences of development and plan accordingly."