

MMS Alaska OCS Region

Focus Sheet

Oil Spill Response Capabilities

Industry, federal and state regulatory agencies and the North Slope Borough formed the North Slope Spill Response Project Team (NSSRPT) to develop a comprehensive spill response planning strategy for North Slope operations. Their efforts resulted in a set of guidelines for developing industry oil spill response scenarios and over 100 response tactics covering safety, logistics, containment, recovery, spill tracking, in-situ burning, wildlife and sensitive areas protection, shoreline cleanup and disposal.

In addition to the tactics, an extensive collection of maps for the entire North Slope area was compiled and published as an ACS Technical Manual. These maps contain information on facilities, roads and pipelines, pre-staged equipment, priority protection sites, archeological sites, topographic and hydrographic information, shoreline types and wildlife resources. The native communities were actively solicited for input and participation in identifying resources of concern and priority protection sites across the North Slope.

Alaska Clean Seas, the North Slope oil spill response organization, has assembled a vast amount of equipment to respond in a variety of conditions. They have 56 miles of containment boom, 3.7 miles of fire boom, over 91 response vessels, 204 skimmers and 276 storage devices. A barge-based response system will be used for on-water response. This system consists of an ice-breaking barge and one ice-strengthened barge that can respond in broken ice and freeze up conditions.

During 1999, both the Alaska Department of Environmental Conservation and the Minerals Management Service issued approvals for BPXA's Northstar Operations, Oil Discharge Prevention and Contingency Plan (ODPCP). The approval actions concluded that the ODPCP meets or exceeds the requirements in state and MMS regulations and the Oil Pollution Act of 1990.

The Northstar EIS process resulted in approval of the project and also established a number of conditions BPXA must comply with to ensure protection of the environment. To protect and mitigate impacts on the environment and subsistence activities, conditions of approval have been imposed by the Army Corps of Engineers in the 404 permit and in the oil spill contingency plan approvals by Alaska Department of Environmental Conservation and Minerals Management Service on the Northstar development project.

- Purchase of additional wildlife hazing equipment
- Staging response equipment at critical landfalls and on nearby barrier islands

- Requirements for through-ice monitoring of the subsea portion of the pipeline for oil releases
- Continued research and development of technology for broken ice spill response; MORICE project

Broken ice response: The Northstar and Liberty oil spill response plans include expanded equipment inventories and response tactics for offshore arctic response, specifically broken ice conditions. BPXA conducted demonstrations of the barge-based response tactic R-19A during the spring and fall of 2000. The results of the trials indicated that spill response capabilities identified in the oil spill contingency plans were overstated. During spring breakup conditions, the barge-based response tactic proved to be ineffective when ice concentrations were greater than 30% of the ocean surface. In fall freeze up conditions spill response effectiveness was even more limited because the response tactics worked to concentrate ice crystals and slush ice around skimming devices and isolate them from any oil that might have been present.

These trials only took into consideration one tactic. Effective spill response relies on the use of multiple tools to collect and eliminate oil from the environment. In broken ice and freeze up conditions, in situ burning may be the best available technology for removing large quantities of oil

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For More Information

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