Monitoring Results

The U.S. Coast Guard and State of Alaska agreed that, on the first two days of helicopter applications, calm conditions did not supply sufficient mixing energy to achieve any noticeable effects. On the evening of the third day, visibility was poor and visual monitoring of the final helicopter application was inconclusive. Nevertheless, with the weather picking up, the decision was made to allow full-scale application in Zone 1 with a one-mile exclusion zone around the grounded tanker. Unfortunately, both T/ V *Exxon Valdez* and the lightering tanker *Baton Rouge* were heavily sprayed during the next application, forcing a suspension of this extremely vital and difficult operation in order to decontaminate both personnel and equipment. No other effects of this dispersant application were observed. The State of Alaska, citing Exxon's inability to "accurately and effectively target the dispersant," declined to allow further dispersant application outside of Zone 1 (Alaska Department of Environmental Conservation, 1989). In any event, a large storm arrived with 40–70 knot (roughly 74–129 kilometers per hour) winds. The window for dispersant use was closed.

In its final report on the T/ V *Exxon Valdez* oil spill, ADEC felt it necessary to state, "There was never a case in which loaded dispersant planes were held on the ground because the government couldn't or wouldn't make a decision " (Alaska Department of Environmental Conservation, 1993, p. 58).

Gulf of Mexico (1999 to 2004)

Between 1999 and 2004, dispersants were used seven times to combat oil spills in the Gulf of Mexico. In six of these cases, dispersants were used under the existing pre-approval plan for oil spills greater than 3 nautical miles offshore and in waters of greater than 10 m depth. Four of these dispersant cases are summarized below.

High Island Pipeline Spill (January 1998)

Approximately 360 tonnes (roughly 2,500 bbls) of South Louisiana crude (API gravity 38.2) were treated with Corexit 9527 using DC3 and DC4 aircraft. The application was very successful, based on aerial observations, SLAR measurements that showed decreased slick size, and SMART monitoring using field fluorometers that showed increased dispersed oil concentrations under the treated slick (Gugg et al., 1999).