

THE VALUE OF DISPERSANTS FOR OFFSHORE OIL SPILL RESPONSE

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ABSTRACT

Oil spill response strategies are designed to minimize environmental impacts to the extent possible. Each response option must be evaluated for operational limitations (e.g., sea state), potential effectiveness, environmental impacts of the response option itself, and applicability under various oil spill scenarios (e.g., size and location of the spill) in addition to health and safety of the responders.

Although mechanical recovery is often favored for its ability to directly remove oil from the environment, it has long been recognized that for large offshore spills this technology has significant limitations. In addition to known operational limits in the presence of currents and waves, the dynamic-nature of offshore oil slicks, i.e., rapid spreading and movement, has resulted in mechanical recovery only treating a small fraction of spilled oil in the past. Because of these limitations, the oil and gas industry has worked to develop alternative response tools that can be used in addition to mechanical recovery to more effectively treat large offshore oil spills.

This paper provides a review of the primary oil spill response options, a detailed discussion that addresses misperceptions and misunderstandings about dispersants and their use, and a description of dispersant use during the Deepwater Horizon incident. The information provided will support the use of dispersants as a primary response tool for large offshore oil spills when the goal is to minimize environmental harm.