

## Executive Summary

**A**pproximately 3 million gallons (10,000 metric tons [tonnes]) of oil or refined petroleum product<sup>1</sup> are spilled into the waters of the United States every year (NRC, 2003). This amount represents the total input from hundreds of spills, many of which necessitate timely and effective response. When these oil spills occur in the United States, the primary response methods consist of the deployment of mechanical on-water containment and recovery systems, such as booms and skimmers.

Under the Oil Pollution Act of 1990 (OPA 90), the U.S. Coast Guard (USCG) passed rules for vessel and facility response plans that specified the minimum equipment and personnel capabilities for oil containment and recovery. This requirement has significantly expanded mechanical response capability above that which existed in 1989 at the time of Tanker Vessel (T/V) *Exxon Valdez* spill (the event that led to passage of OPA 90). Mechanical recovery, however, is not always sufficient because conditions at the spill are often outside of the effective operating conditions of the equipment. OPA 90 also called for national and regional response teams to develop guidelines to address the use of other on-water response strategies, specifically the use of chemical dispersants and *in-situ* burning.

Throughout the United States, many regional response teams have identified zones where dispersants and *in-situ* burning are “pre-approved” for use. This pre-approval means that the response and re-

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<sup>1</sup>The terms oil, refined product, or petroleum hydrocarbon are used interchangeably in this report.