

SECTION 1

INTRODUCTION

Who will judge spill response? How will they assess response performance? Will all stakeholders, after applying their individual, disparate, and sometimes-conflicting criteria, agree on whether a given response was effective? It is conceivable but not likely. The most likely scenario in a significant spill is that at least some of stakeholders will make negative judgments, and those negative judgments will impact overall perception of responders' capabilities adversely. The response community has faced this dilemma since the days of the *Torrey Canyon*.

Some oil spill laws and regulations require a contingency planning and response process that involves private sector companies and government agencies with responsibilities for spill response. Others make contingency planning and spill response government functions. With either, many aspects of spill response are planned in advance. Drills and training exercises are conducted on a regular basis. Agreements are reached among participants regarding assignments when a spill occurs. Participants in this process not only have designated roles by law and regulations, but they also develop a level of teamwork by becoming acquainted, working together, and establishing some trust and good faith. When a spill occurs, however, plans carefully made and practiced may not be implemented as intended. Entities not previously involved (e.g., elected officials, citizens groups, additional government agencies, and the media) may thrust themselves into the best-laid plans.

This paper explores the roles of participants and interested observers in a spill response and the criteria by which they judge response performance. Specific factors that promote or impede effective response performance are identified, followed by recommendations to improve the possibility of a "successful" response. Conceptual models for measuring preparedness and response performance are presented, and they offer a structure for evaluating performance and identifying opportunities for improvement.

A large oil spill generates strong negative emotions and presents a challenge to response organization. The spiller is shocked and embarrassed that the accident occurred. Elected officials and government agencies at all levels respond to public outrage; the media are mobilized quickly; and angry citizens step before microphones denouncing the spiller and calling for immediate action. The media question spill managers, cleanup contractors, scientists, and other spill "experts" about response details and spill impacts and how long they will last. Cleanup crews work to contain and recover oil offshore, prevent it from reaching environmentally sensitive areas, set up bird rescue and rehabilitation operations, and treat oiled shorelines.

When it is all over, how successful was the response effort? Each entity may have a different perspective based on its way of assessing. The priorities of the company that had the spill are financial integrity and survival of the company, and being perceived as a responsible corporate citizen. Scientists ask whether ecological impacts were minimized. Were spill impacts assessed adequately? Did the cleanup and restoration methods that were used promote recovery of an affected environment? Response operations personnel are most concerned with prompt deployment and effectiveness of response equipment. Government regulatory and trustee agencies want specific resources protected, rapid cleanup and restoration, and spill impacts assessed. The media cover a spill and its effects as well as the progress of a spill response effort, especially human-interest stories and controversies among participants.

The power of the media in generating interest and action from the public and interest groups cannot be overstated. Most participants in, and observers of, the response process probably view the media as closest to the final judges of response performance.

1.1 OBJECTIVES AND ORGANIZATION OF THIS REPORT

Oil spill preparedness and response have evolved since the *Torrey Canyon* and Santa Barbara spills of the 1960s. More people are involved; research efforts have resulted in greater knowledge about the fate and effects of oil spills; and improved technologies have enabled responders to respond more effectively. The objectives of this paper are:

- to explore the history of judging spill response performance from the 1960s to the present;
- to identify the various parties that are stakeholders and the criteria and standards they use to judge response performance;
- to identify and discuss factors that promote and impede performance;
- to develop recommendations to improve response; and
- to develop recommendations to improve response performance measurement.

Section 1. Introduction. This section identifies the paper's objectives, approach, and potential use.

Section 2. The History of Judging Spill Response Performance. This section presents the historical foundation on which oil spill response is conducted and judged today. Spe-

cific examples of concerns and measurement criteria are presented beginning with the late 1960s and concluding with perspectives in the 1990s.

Section 3. The Stakeholders and Their Criteria for Assessing Performance. This section identifies various individuals and groups that either have responsibility for or take part in spill response. Their roles during oil spill response are discussed along with their criteria for assessing performance. Internal and external stakeholders are identified.

Section 4. Forces that Promote or Impede Performance. Two sets of factors are identified that promote or impede a successful spill response. Factors that promote performance are discussed to emphasize their importance. Factors that impede performance are identified so that they may be overcome and lead to performance improvement.

Section 5. Performance Assessment. This section takes the criteria for assessing spill response performance in Section 3 and presents recommendations on how to use conceptual models to improve how performance is judged.

Section 6. Recommendations. Section 6 contains specific recommendations to improve performance and performance measurement.

Appendix. Print Media Articles. The appendix includes both newspaper and magazine articles, organized by spill and by date, on 12 major spills.

1.2 APPROACH

To achieve this report's objectives, information from case studies of major spills is integrated with scientific and sociologic

literature on spill preparedness, management, and response. The intent is to provide a well-reasoned basis for a mechanism to judge oil spill response performance. Information in this report is supplemented by the author's personal knowledge from over 20 years' experience in industry. The author also relies on the judgment, perceptions, and opinions of oil spill response professionals and regulators, as well as personal observations and necessarily subjective opinions in drawing conclusions. For the purpose of this analysis, the following terms are used:

- **Measures:** factors or criteria against which response performance is assessed.
- **Assessment:** process of using measures to determine a relative level of response performance.
- **Judgment:** outcome or conclusion.

This report has been developed to foster discussion on improving spill response performance through improved performance assessment processes. It is hoped that discussion will lead to community consensus on:

- the stakeholders,
- their criteria for measuring performance,
- factors that promote or impede performance, and
- conceptual approaches to aid response performance and assessment.