

EXECUTIVE SUMMARY

Over the past 20 years, there has been massive investment in oil spill response capability around the world. Considerable efforts have been made in many countries to improve the general level of preparedness by developing or updating National Contingency Plans and by examining the issues of spill management, spill risk, priorities for protection, and strategies to be employed, as well as equipment and personnel requirements. National laws, together with bi-lateral and international agreements, have introduced compensation arrangements and have attempted to ensure a higher standard of preparedness and international co-operation. This paper attempts to assess whether these investments have been successful using two criteria for post-improvement responses: Were they technically more effective, or were they perceived to be more effective? There is a danger that the latter may be compromising the former.

Using these criteria, the paper asks the following questions: Have improvements in preparedness and response capabilities been worthwhile? Have the policy and infrastructure changes made a real improvement in the response community's ability to reduce the adverse impacts of a spill? Do these improvements matter outside the context of an incident? This paper examines whether improved response capabilities and performance over the past 20 years are myths or realities. Specifically:

- Have response capabilities to clean up large spills improved over the last 20 years?
- Have increased response capabilities resulted in improved performance?
- Has improved performance had a positive effect on political, media, environmental, and public perceptions?

Information was gathered from a number of major oil spills (>10,000 tonnes or 70,000 bbls) around the world. Smaller spills also were used where they would usefully illustrate a key point. This spill information was combined with the practical experience and personal observations of the author and many oil spill response professionals from around the world, thus providing a well-reasoned basis for concluding whether the critical issues listed above are myths or realities.

The paper concludes that it is impossible to make a general statement about improvements to oil spill response capabilities and performance on a worldwide basis. Rather, specific

changes must be examined regionally or nationally to determine if increased capabilities and improved performance occurred. There have been huge increases in the quantity of oil spill response equipment in many parts of the world. In co-operation with other countries as well as industry, many governments have improved contingency planning and equipment capabilities. In other parts of the world, there may have been little improvement because of more pressing national priorities. Evidence shows that international, national, and industrial determination to improve spill response capabilities is cyclical, increasing immediately following a major spill event and waning as time progresses.

Some measures of success are difficult to quantify, such as the spill management team's efficiency and effectiveness, vessel salvage plan, or shoreline protection strategy. Other indicators are easier to measure, such as amount of oil spilled versus amount recovered at sea or from the shoreline. The lack of accurate historical information about major oil spills also makes it difficult to identify precise performance improvements. Nonetheless, conclusions can be made about the myths and realities of improvements in a number of areas.

It is a reality that international conventions and agreements have improved the commitment to preparedness planning; however, many provisions of these conventions and agreements have yet to be implemented. It is a reality that the international oil industry has invested considerably in the establishment of local, regional, and international stockpiles of equipment. Another reality is that the international response community now accepts that contingency planning is the essential prerequisite to a successful response. The scope of contingency plans has improved over the years to include risk analysis, forecasts of oil movement, identification and prioritisation of resources at risk, and selection of suitable response techniques. It also is recognised that plans must be constantly tested and updated through regular exercises. There are still far too many places in the world, however, where satisfactory planning has not been conducted, and, in some cases, inappropriate equipment purchases have been made.

In most countries where major spills have occurred, lessons learned from those spills have been incorporated into national response plans. In many countries, there is an increased awareness of the critical role of salvage in improving spill response. There are ample stockpiles of mechanical containment and recovery equipment in most parts of the world.

Dispersant use is still controversial, but is slowly gaining acceptance as the benefits become more widely accepted, and limitations become better understood. Where responders have become experienced at working together during exercises and responses, spill management has improved significantly.

Unfortunately, in those regions of the world where mechanical containment and recovery for major offshore spills remains the only or primary response method, there is unlikely to be any significant improvement in response operations because of the well-known, and to date insurmountable, limitations of this technique. In some parts of the world, spill costs have escalated significantly. Media, environmental interest group, and public pressure undoubtedly has contributed to gross over-reaction or inappropriate actions being taken. This is exacerbated by the lack of an independent, effective mechanism to determine technical reasonableness, and there being no means of penalising unreasonable or ineffective decisions or activities that may have contributed to excessive costs by refusing to reimburse them.

Generally, the factors that contribute to improved performance during oil spill response do not match those that are perceived as improved by politicians, the media, environmental interest groups, and the public. The media rarely report on the technical successes of a response and, on most occasions, dramatise potential disaster, which contribute to public outrage. It is unlikely that this will change. Environmental interest groups continue to use oil spills to promote their own agendas, despite evidence that spills are not the permanent environmental disasters that these groups prefer to portray. This also is unlikely to change. In some areas of the world, how-

ever, some success has been achieved in creating a climate of trust and co-operation, which tempers political reactions. Politicians, however, remain responsive to their constituents and follow public reaction to oil spill response performance, whether real or perceived. There is a need for the oil industry to make strenuous efforts to improve its image, attempt to educate the public about the realities of oil spill response, and reduce the public expectations of what can be achieved.

The problems that currently inhibit improved performance are not ones that massive increases in equipment will fix. Some problems are insoluble with present-day technology. Organisational problems can be overcome by better planning, acceptance of alternative response techniques, training, exercising, spill management, and cost management, with government and industry working in co-operation to plan, respond, and involve all potentially affected parties. In some countries, their current state of development may well mean that they are not ready to devote scarce national resources to the problem and will need external assistance for some years to come.

The answers to the three critical issues are yes — in some ways and in some places. In most areas, investment has not been just an expensive public relations exercise, but there are worrisome signs that some responders are beginning to think that it is. There have been major improvements in many parts of the world, and many countries are now much better prepared than they were 20 years ago. It is still unfortunately the case that in many places, there has been little or no improvement, either because of lack of resources, understanding of the requirements, or will. In the last two cases, many of the myths remain, and the realities are not yet understood.