

Industry resources for responding to oil spills ~ What determines their effectiveness?

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This paper will be delivered in two sections, initially looking at the industry capability for responding to oil spills around the globe and secondly, identifying the barriers and obstacles to the effective use of these resources and what may be done to overcome them.

Industry resources for responding to oil spills

For many years the oil industry has recognised the need to provide an effective response to oil spills. Since the first major accident involving the Torrey Canyon in 1967, where the response was ad-hoc to say the least, there has been a tremendous investment to improve response capabilities worldwide. One of the industry's key drivers in the quest for effective response has been an attempt to deliver a 'risk based' solution. To achieve this, the tiered response concept was evolved. The tiered response philosophy recognised the reality that, in the main, the vast proportion of oil spills are small operational events that might be more frequent in their occurrence, but are generally limited in their impact and can be dealt with by the industry with little intervention from the National Authorities. These spills are categorized as Tier 1 events. As the severity of a spill increases, either by virtue of its size or its location, the National government takes an increasing role in its management. This is generally as a consequence of the increasing impact, both environmentally and politically. In the event of an emergency the public rightly look to their leaders to demonstrate control over events and have expectations that this will be the case. A spill that meets the criteria described above i.e. one that is beyond the control of the local resources and requires the intervention of the National Authorities is categorized as a Tier 2 event. The last case, and the most serious, but thankfully the most infrequent, is the Tier 3 incident. This type of event requires international or external resources to be brought to bear as the incident is so serious that it can not be dealt with by the National Authorities alone. The Tiered response concept is very simple in theory but can be difficult to interpret and implement in practice as the range of resources available at each of the Tier levels varies greatly. The Tier 1 levels are set by the nature of the operations and the risk they present. The resources available at Tier 2 from a national authority may range from being completely comprehensive to being completely absent. The difficulty in providing back up resources is also a factor in the planning as if there are difficult logistical challenges to overcome through either transport, distance or bureaucratic requirements, the local resource levels may need to be increased to compensate. The concept does rely on every stakeholder properly playing their part to achieve an effective response and equally importantly

integrating with all of the tiers to provide a seamless effective response. It is at these interfaces that the problems generally occur. The Tiered Response and Preparedness paper produced by the International Petroleum Industry Environmental Conservation Association (IPIECA), has recently been updated and documents the concept in much greater detail and clarity for the stakeholders. The documents is currently only available in English but can be downloaded from the IPIECA website at www.ipieca.org/publications.

Depending on where we are in the world, the degree of ability to provide management, trained personnel and equipment resources varies greatly. In highly developed places such as Japan, for example, there is a comprehensive and sophisticated array of resources available, in many other places this is not the case. Many National administrations do not have the luxury of funding to equip national stockpiles of equipment, but regardless of this there is still a need for them to be involved in the management of a response as it is their responsibility. The International Maritime ~~Organisation's~~ International Convention on Oil Pollution Preparedness, Response Convention and Cooperation, 1990 (OPRC convention) recognises this, and one of the six elements of response, probably the most important one, is to designate a lead or competent authority within the Government structure to take the management lead. Signatories to the OPRC convention are also expected to have a notification system to advise of oil spills, a national contingency plan, a training and exercise regime to test preparedness, access to equipment resources and transboundary arrangements to facilitate easy movement of resources. These are the fundamental building blocks of an effective response capability.

In the 1980's the oil industry recognised that there was a need for an integrated response structure to respond to the high number of incidents that were occurring worldwide. There was no desire to establish huge response facilities in every country in which the oil industry operated, on the basis that the ongoing funding of the care and maintenance of equipment, and the training of personnel in its use is difficult to sustain. This has been demonstrated to be the case over the years. As a consequence the industry established a number of response centres, including Clean Caribbean Corporation (CCC) in the United States, the Tiered Area Response Capability (TARC) in Singapore and Oil Spill Response Limited (OSRL) in Southampton. By the 1990's, following a spate of severe incidents, including the Exxon Valdez, which had an impact well beyond its actual severity in terms of its volume, the demand for increased response capability was growing. Response centres were established by the industry in the United States as a response to the Oil Pollution Act of 1990, an Act passed by US Congress requiring a huge increase in planning and response resources, these being provided by Marine Spill Response Corporation (MSRC) through five bases. In Australia, the Australian Marine Oil Spill Centre (AMOSOC) was inaugurated with a responsibility for national response and support to the South Pacific islands. In Singapore, East Asia Response Limited was established to enhance the response capability in the region and, following the Nagasaki Spirit,

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Sanko Honour and Maersk Navigator incidents in the Malacca Strait, the Petroleum Association of Japan (PAJ) established its network of response centres in domestic Japan and along the main tanker trades routes from the Middle East.

Over recent years, as a consequence of improved shipping quality, better management scrutiny, stricter legislation, ship vetting and a variety of other measures, there has been a marked reduction in the number of spills occurring from the tanker sector of the industry.

This has led to a number of consequences. Many of the small response organisations, particularly those established in the United States in the early 1990's, have left the business and globally there has been a consolidation of the response resources. MSRC have integrated some of the response co-operatives in the US and changed their base arrangements and also

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OSRL and EARL have merged to become one company (OSRL EARL). The drop in spill incidents has also led to a reduction in the number of opportunities for responders to attend spills, clearly a benefit to the environment, but one that has an impact on those in the spill response industry to maintain and enhance their competence. To counter this, and to try and leverage the huge investment made by industry across the globe, OSRLEARL and MSRC

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established a group called the Global Response Network (GRN). This group is formed from the industry funded response organisations and works to share resources and response knowledge among its members. It also has the ability to share personnel at no cost, to give members the opportunity to attend spills and gain experience, either general or very specific.

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For example, Alaska Clean Seas, a member of the GRN provided an opportunity for OSRL EARL staff to gain direct cold weather response experience during an incident they responded to on the North slope in Alaska during winter, an invaluable opportunity. These organisations, and others, also participate in the Industry Technical Advisory Committee, a technical group drawn from the response community worldwide. In the group technical issues, information and spill experiences are shared and discussed within the community. Information on the group can be found at www.industry-tac.org. As can be seen, the oil industry globally has contributed hugely to preventing incidents and improving response to oil spills, and in the oil sector there is a marked improvement in the overall performance. Across the entire marine sector, a pattern seems to be emerging of an increase in weather related incidents that is leading to an increase in casualties and spills, so whilst the tanker sector continues to improve there is still a background of spill events that needs to be countered.

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Response effectiveness

To make resources available is one part of the issue, to be able to use them effectively is something else entirely. The history of oil spills is littered with examples of difficulties in providing an effective response capability. The six key issues that surround this could be summarised to being able to:-

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1. Have the ability to call upon resources (access)

2. Have the will to do so
3. Have a clear understanding of what is needed
4. Have the ability to deploy the resources
5. Have the ability to manage the resources
6. Have the ability to be able to say no to assistance if it is not required

1. Access to resources

The OPRC convention, as stated, requires that resources be available to respond to oil spills. These can be provided in many different ways, through National Government, commercial providers and also from the Tier 3 response providers including organisations such as the PAJ and OSRL EARL. Clearly from the point of view of effective response it is a question of getting the right resources in the right place at the right time. As a result, the origin of the equipment may vary in order that the best response time can be achieved. The agency that requests the resources might vary and may be the shipowner, cargo owner, insurer, ~~insurer's~~ technical advisers or Government. It can be seen there is no shortage of people able to call for these resources; the important part is for it to happen in a timely manner and for the appropriate resources to be requested.

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2. The will to mobilise resources

Given the vast amount of resources places at great expense around the world, what inhibits their use? Oil spills are curious phenomena. The spiller sometimes fails to report the incident, or if they do, the amount reported might not be accurately transmitted, either through accident or design, so in some cases the actual requirement is unclear. The call for resources to respond does need be controlled however, there is no point deploying resources that cannot be effectively used or managed. There is a need for skilled and experienced technical advisors, who understand what happens to the oil, what the impacts might be and what strategies can be used to combat it. The 'knee jerk' reaction should be avoided. But experienced observers do exist and they can be quickly deployed to site to assess the likely consequences of a spill and make recommendations. This advice should be heeded and acted upon immediately. The time aspect is critically important, particularly in respect of a dispersant response, as any delay will reduce the effectiveness due to the weathering and spread of the oil. In the experience of OSRL EARL, there have been occasions where the decision to mobilise has been delayed due to political or financial concerns and in one incident recently a delay of 10 days in mobilising a response meant that the effectiveness of the response was reduced to virtually zero and became a pure political expediency. This is not a good use of response resources. This is another curious aspect of oil spills, they quickly change from being a technical discussion to a highly emotive political event and in some

cases there is a reluctance to call for support as it represents a perceived failure on behalf of those requesting the help, when in reality, the very reverse is true. It is fair to say that there are very few plaudits for anyone involved in an oil spill, and the best one can ever hope for is to minimise the amount of negative criticism that is received in the final analysis. To positively deny the opportunity to use existing resources that might be of value could not be deemed a positive contribution however. There is often a tendency to believe that 'things will get better' over a period of time, in the hope that they will. Invariably this proves not to be the case and they get worse.

3. Knowing what is needed

Deciding which resources are necessary is another important point. All oils are different and will behave in different ways in specific environments, and each will require an appropriate set of strategies. The strategy choices are based on oil type, volume spilled local environment, weather, oil movement, logistics support and the local resources and manpower available. There can be a tendency to 'call for everything' but in reality only a small proportion of equipment might ever be used. This again is often driven out of the political imperative to be seen to be in control of events, for that read 'be seen to be mobilising everything, even if we don't need it', this again is a fallacy as it may lead to resources that are of value being withheld or delayed. Deciding on the response strategy and what is required should be done in consultation with those experienced in response to ensure that the right resources are mobilised.

4. Deploying the resources

It is pointless to request resources that can not be deployed, either because they are not suited to the spilled oil type, do not have the correct logistics support or do not have the staff trained to operate them or sufficient personnel to conduct the planned operations. These aspects must be understood when requesting the assistance, and again experienced responders can be used to assist in this vital decision making process. There must be a plan on how the resources are to be put in effective use.

5. Ability to manage the resources

Once the equipment and personnel are deployed to site there is a need to be able to manage them effectively. Often in the early stages of spill there is a tendency to flood the response with resources. To establish an effective management system with a collection of people that maybe have never met before, have differing objectives and priorities, based on scant information in a new location is never going to be easy and will take a time to settle down.

Again the 'knee jerk' reaction is not helpful and the response should be gradually ramped up as the management ability to engage the resources effectively increases.

6. Have the ability and courage to say no

As in all of life and business experiences, there are times to say 'yes' to things and equally there are times to say 'no'. As can be seen in some of the previous examples, if support is genuinely not needed, and will not assist, but is being imposed out misplaced desire to help or political expediency it is important to say no. To do otherwise will compromise the effectiveness of the response.

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Conclusion

In summary it is clear that there are large amounts of resources available to respond to oil spills either from the oil industry, Government and commercial providers. There is also, through the OPRC convention, a framework that can enable these resources to be used in an effective manner should the need arise. The principle behind the response has to be getting the 'right resources into the right place at the right time and being able to manage those resources effectively once they are on site'. The Contingency Plan is the mechanism for making this happen and it is important that this is exercised and tested on a periodic basis to ensure that all of the players are familiar with what is required of them in the event of an incident. Equally the technical advice that can be provided from those experienced in dealing with oil spills should not be ignored or abandoned to political expediency. Time is at a premium in any spill situation and should not be wasted.