THE OIL INDUSTRY INTERNATIONAL OIL SPILL RESPONSE CENTRES: WHAT FUTURE?[1]

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ABSTRACT: *Over the years the oil industry has invested significantly in strategically placed oil spill response centres and continues to fund them. Oil spill response strategy has historically been based around the tiered response structure which favours these stockpiles. When first positioned, the major risks were in oil tanker traffic and the headline accidents, with major oil company names attached, warranted their future*

A number of the oil majors have since moved out of shipping and the services provided have changed from the simple "fire station" service to the delivery of a range of training, consultancy and other services. This increases awareness and helps mitigate the impact of spills, but also changes the nature and expectations of the centres. A similar change in the end user, with ever greater need to protect major exploration, production and development programmes inevitably shifts the requirement to a need for more substantive tier two facilities close to these locations.

Does this shift in requirements necessitate a shift in the thinking regarding the international tier 3 centres, should they continue in their current format or is more change needed?

This paper explores these issues and looks in detail at what changes could come about and how they could add value. The paper analyses the cost and value of current global populace of the centres and attempts to quantify the benefit of change to the industry.

Discussion

The background to the international oil spill response centres. The international oil spill response centres have been operating and providing services for nearly 25 years. The Clean Caribbean Co-operative in Fort Lauderdale was the first such organisation, established in the late 70s followed by the BP Oil Spill Service Centre established in Southampton UK in the early 80s. Oil Spill Response limited was developed from this and was incorporated in 1985 and was the first centre with a global remit. The centres were established in response to the number of tanker incidents and subsequent pollution which caught the media attention, notably the Torrey Canyon and Amoco Cadiz spills, and were funded and supported by those oil companies with major shipping arms to protect their interests. In addition they provided fertile ground for research and development in spill response techniques and equipment and much credit must go to BP for their efforts in this regard.

Major incidents have a habit of stimulating interest and the Exxon Valdez fuelled the development of the Marine Spill Response Corporation in the USA, East Asia Response in Singapore and the Australian Marine Oil Spill Centre in Geelong outside Melbourne.

The locations of the centres were determined by their proximity to the major tanker routes and other areas of particular high risk. In the early days of the centres' evolution there were attempts to decentralise the facilities, for example, BP had small stockpiles in a number of countries on their trade routes, but it was found that a central location provided the most effective means of managing and maintaining the equipment. Without replicating the high levels of technical maintenance and support at each location, the equipment could not be guaranteed to be 100% effective, a situation that exists to this day. Centralised locations, with permanent staff, highly trained to ensure full equipment readiness are therefore recognised as the most effective means of providing the response services of the last recourse.

This centralisation developed alongside the concept of a tiered response structure which is the model adopted by the international oil industry and the International Maritime Organisation (IMO) and is embodied in the Global Initiative that promotes OPRC 90 (the Oil Pollution Preparedness and Response Convention of 1990). This convention, ratified by many countries around the world, promotes the tiered response concept. The Tier 1 response being that which is necessary at any site or location for immediate response and is the responsibility of the site (or facility) operator. Tier 2 is a regional response capability that may be provided by the state or through regional co-operation of operators. Finally Tier 3 is the last recourse of equipment and

facilities from International sources. The Tier 3 centres as shared resources, are able to stockpile very large amounts of different types of equipment to support any eventuality. The sponsors of the centres therefore had developed the most cost-effective solution to the problem of covering their risk.

Factors of change. Nothing is static however, particularly in the oil industry, and over the past 20 years there have been a number of changes and developments that challenge, or bring into question, the established thinking in respect of the centres.

The most notable development has been the move by many of the oil companies to distance themselves from the liabilities associated with shipping oil cargoes. A number of majors have moved out of shipping altogether while others use different means to avoid the negative implications of major tanker disasters. Contracting out the shipping to third parties or using arms length subsidiary companies with different identities is common amongst them all. This, coupled with the ongoing reduction in tanker accidents, means that the prime instigators and traditional supporters of the centres are reducing in numbers and more importantly in their influence within the oil companies.

The reduction in incidents is marked and most welcome and the demands on the oil spill response services are consequently reduced. The traditional view therefore of the centres as a "fire station" is less supportable. Most, if not all, have identified this and have evolved to include other services such as training and advice. This in itself helps to increase awareness, mitigate the impact of incidents and increase preparedness and thus goes further to reduce the call on the centres for spill response.

The majority of oil spill training is now provided from these centres, providing high standards that become the benchmark for other service providers. In the UK, Europe, Far East and the Caribbean the centres assisted in the development of IMO standard training courses and are now involved in their delivery.

As the technical competency of the staff at the centers increases they are more frequently called upon to provide advisory services to industry either in the form of specific consultancy projects, such as the development of contingency plans, or through the secondment of personnel for particular projects. Rationalisation and mergers within the industry reduces the oil companies "in-house" expertise and thus the demand for technical resources from the centres increases compounding the need for change. A different type of responder becomes necessary, one with more technical expertise capable of providing more advice. They are less seen as responders, more as spill response advisors.

Factors of change apply not only to the spill response centres. There are three other issues that combine to question the traditional thinking in respect of the centres. In the first instance the profile of the oil companies is changing. Second, global awareness increases the local demand for attention to environmental issues by oil field developers and producers. Thirdly global communications are increasing making rapid transport of personnel and equipment and data transmission ever easier. These three factors create a dichotomy for the centres, one the one hand suggesting a rationalisation of centres is more feasible, on the other an increasing need to extend the services provided.

In the first instance the oil company requirements are moving away from the traditional oil tanker and oil cargo protection and more to the need for cover during the higher risk exploration, development and production phases. We see major developments in some very sensitive parts of the world, such as Alaska, Sakhalin, Chad/Cameroon and the Caspian Sea. In these locations there are significant infrastructure developments to exploit the major oil finds and those involved are careful to ensure the proper preparedness and protection. These are high cost projects that support major investment in oil spill response. It is clear however that the demand is local as opposed to national and with decentralised oil company controls it is common that the issue is looked at in a local sense. With decentralised oil companies there are less personnel with the global view and the demand for local services can take precedence. The high value of the projects and the "can do" attitude of those needed to make them work has a tendency to assume a local solution to a problem is best, counter to the original thinking for the centres. In the worst case this is leading to a duplication of those services that are already provided from the centres.

The second factor, that of the increased local awareness, tends to compound this problem of duplication. It is inevitable, and welcome, that the levels of local (tier 2) response increase but important to ensure that this is balanced and kept in the manner of the tiered response structure. Many developing countries envisage the need for a major tier 3 response centre on their doorstep and bring political pressure on the oil companies accordingly. The temptation is to establish such centres at these locations, and, while in the development phase of the project, the amounts of money required to do so is perceived to be small. Established in isolation these are not sustainable, the ongoing costs are brought into question when the tighter budgets of the ongoing production operations take over, the lack of proper integration into the tiered response structure creates a vulnerability to major spill incidents and duplicates resources. The tiered response structure is in place to help avoid the unnecessary proliferation of these large regional stockpiles.

Finally the improvement in global communications and the ability to move personnel and equipment around the world quicker and with more ease supports the industry model of the tier 3 centres. Communications improvements mean that advice can be provided at anytime to anyone anywhere in the world. Oil spill trajectory modelling is already carried out by experts at the centres and passed real time over the Internet to many customers in different locations. Also at the preparation stages more use of embedded video footage in contingency plans means better understanding of local problems from remote advisors. These factors, combined with the ease of travel and ongoing improvements in equipment mobilisation through more compact designs and better packaging, allow personnel and equipment to be moved over greater distances in shorter times. This reduces the need for the larger local stockpiles.

Should the centres change? It can be seen from the factors of change discussed above that the centres face a future that will be different from the past, whether the difference is as radical as disbanding them and moving resources to the regions is clearly doubtful. The tiered response structure is still very much valid and there are compelling arguments that a reaction to the narrow demands by those who hold the purse strings in the E&P departments for major centres to support local projects would be short sighted. Theirs is not a long-term requirement and would not be sustainable in the later stages of field development. However at the same time we see a distinct decline in the number of major incidents, particularly from oil tankers, and, thanks to improved technology in well control and better safety devices, the incidence of well blow-outs leading to major oil pollution is rare. More reason then to reduce the investment in the Tier 3 centres and focus on regional response? The evidence suggests not.

Industry will not (and should not) support duplication of resource. The proliferation of disproportional large regional Tier 2 centres while retaining the current large Tier 3 centres would do

just that. There is a case for good Tier 2 resources but this must be balanced with the ability to maintain operational quality and high industry standards.

There is more need for standardisation of training and preparedness in general, this goes hand in hand with the oil industries' overall programme of avoiding duplication and using best practice wherever possible. In addition, while the incidence of major oil spills is reducing they are not eradicated, and while oil is produced and transported, they never will be. Regional resources are just that and can not provide global support, indeed for the very reason the need for a regional centre is argued it precludes moving those resources outside the region it is designed for, thus there is no additional resource in the system.

The international Tier 3 centres therefore should remain but we must also take into account the need to provide support for regional developments.

Adding Value. The International Tier 3 centres are therefore evolving and their future will be in a different form. They have a need to expand their services while all the time standing by to provide the oil spill response service of final resort. It is a given that these additional services must add value, the challenge is to determine what these services are, how they will be funded and what impact it will have on their traditional response service.

In OSRL and EARL this has been tackled by first determining what the oil spill response service is. On face value it is seen as equipment stockpiled in a central location but clearly it is more than that. Without specialist operators and technical advisors the equipment is next to worthless and without maintenance it would not be sensible to send it out half way across the world for an oil spill. A spill response resource therefore includes people as well as equipment. But it also includes the education of those personnel involved in a spill as to how these resources can be integrated into their own response. OSRL and EARL have combined all these factors into an agreed standard that is termed the Service Level Agreement. (SLA) which is agreed by the Board of Directors and is the foundation of the services provided.

The SLA is the prime reason for the centres existence, and all other services that emanate from them must be complimentary and add value to this.

OSRL and EARL define the SLA in three distinct parts; 1) Response Services, 2) Response Integration, and 3) Response Advocacy. In detail these are defined and explained as;

Response Services, the "Fire Brigade" element consisting of a 24hour 365 day on call response service which will comprise a clearly defined mechanical and dispersant response with known volumes of resource (being both personnel and equipment).

There is a defined time for mobilising all services out of the base area and dedicated facilities (again available within an agreed timeframe) to deliver the resources to the agreed location.

To ensure effectiveness there is also an agreed management structure, with an establishment with facilities to support the response. This infrastructure maintains the continuity of the service and all the elements are essential to mount any form of response

Response Integration is ensured through advice and support on how to use the response services most effectively. A Tier 3 international response is not a magic cure to an oil spill; it is in effect only the provision of additional resource to support some already mobilised response structure. Such activity can only be effective if it integrates well with that already in place. To ensure that this is the case it is necessary to conduct a review of the users' response capability to identify their contingency plan suitability and identify the available resources. This is effected through the provision of a gap analysis identifying how the response would be compromised by any shortcomings.

In addition to this it is necessary to ensure real clarity of the service provided by the Alliance, how it works and how to get the best out of it. This entails a focussed training programme of key staff, tested and verified through tabletop and mobilisation exercises.

Integration is also enabled through direct advice and information provided on a constant basis 24hours a day 365days a year.

Response Advocacy is the third element of the core service provided. The oil industry spill response philosophy of a tiered response is well tried and tested but still not always fully understood around the globe. If it is not accepted in any particular development area the impact on the industry is high and costly. It is fundamental therefore that the centres provide support and promotion of this philosophy.

The Alliance does this through hosting of visits to the various bases to explain and demonstrate the capability and in the broader arena through support for industry wide initiatives such as IPIECA and the Global Initiative, US D.O.E. regional seminars and the IMO/UNEP regional training courses. The attendance at, and support of, industry conferences and seminars are also important.

Technical advocacy is also important and there is a global oil spill response industry Technical Advisory Committee that works at identifying the most practical spill response techniques and establishing standards of quality and effectiveness from a practitioners view.

Other advocacy activities include support for regional oil company activities such as those developing in the Black Sea/Caspian and West Africa regions. Support is provided through secondment of personnel and technical advice.

This clear definition of the service is both needed and expected by customers, but it also gives the opportunity to determine the exact cost and then the opportunity to question the value for money and whether it is provided at the least cost. In the exercise carried out by the Alliance it was found that in OSRL the total cost of the above three elements was US$ 10m for the year 2002.

The Alliance's additional services generate over US$ 2.2m of revenue and contribute over US$ 1m to reducing the cost of the SLA to the shareholders. These services cover a wide range of activities, from traditional training courses and consultancy services (in the preparation and writing of contingency plans) through Tier 2 local and regional response services to drilling support and equipment hire. As well as the significant commercial value of reducing fees to shareholders they are a rich course of internal training for response staff and a means of developing and stimulating staff. This is itself makes the resources of the centres more valuable to the oil industry and other users.

Conclusion

This brief analysis has focussed on the Alliance of OSRL and EARL and the financial analysis only on OSRL. If this comparison is applied to all the other international oil spill response centres it can be seen that while there will be a large total operating budget the potential for adding value is substantial.

The added value services could generate some US$ 7 – 10 m over time, particularly as the major customers, the oil industry,

reduce manpower and lose in house expertise. As long as the principal response service is defined and protected, as in the SLA, and the additional services are likewise developed to an internationally acceptable standard there will be major benefits arising. The main beneficiaries are of course the oil industry sponsors of the centres but the responsibility rests on them to ensure that their needs are clearly defined, that they manage the expectations of their staff and are clear in their needs. The use of the SLA is therefore very important and must be well understood throughout the industry and is a model that will be useful if adopted by all the international response centres.

The future is therefore very encouraging and attractive not just for the centres but for their sponsors and users. There is more opportunity to use them in different ways and to generate more added value from them and to do so in the most cost-effective manner.

[1] The opinions and views expressed in this paper are solely those of the authors and do not necessarily represent the views of any other party.