

Preparedness for Oil Spills – New Challenges for the Oil Industry and for the Responder Community

Andrew Nicoll, Advocacy Manager - Oil Spill Response Limited

PAJ Symposium 7th March 2012

This presentation considers the best practice for building and maintaining oil spill preparedness in the light of major changes to the planning regime necessitated primarily by the Macondo incident in the Gulf of Mexico (2010), as seen through the eyes of a Tier 3 response organisation.

To set the context the speaker will say a few words about the history and development of Oil Spill Response Limited (OSRL) as a Tier 3 response organisation and its role in the wider stakeholder community.

Spill preparedness is nothing new but it seems to take a catastrophic incident every generation to focus the world attention on how industries and governments collectively prepare to respond and often drive legislation. Whilst The Macondo incident has formed the catalyst at this time, some twenty years ago the spill response community was going through a comparable evolution as the impacts and ramifications of the Exxon Valdez incident were being addressed through the International Maritime Organization (IMO). Then the consensus was that more needed to be done to stimulate effective spill preparedness at the industry and governmental levels based upon the premise that successful response is built upon good collaboration between the controlling authorities and the responsible parties. The Oil Pollution Preparedness, Response and Cooperation Convention (OPRC) of 1990 was the instrument to set out the agreed principles conveyed in its title and the Global Initiative (GI) was the vehicle driven by IMO and IPIECA to promote the Convention to national and regional, government and industry audiences.

The bedrock of OPRC is to have contingency plans which are developed in a framework that builds upon the input of a wide range of stakeholders and also recognises the different scale of response needed to counter spills that can have a range of impacts. A key component of contingency planning is a Risk Assessment which is equally applicable to a platform or oil-handling facility as it is to a nation or a sub-region. In 2010 the IMO produced a manual on Risk Evaluation and Assessment of Response Preparedness which is a useful guide for planners who first need to understand where the potential sources and causes of oil spills come from. Twenty years ago, following the event that precipitated the OPRC convention the risk of oil spill to a maritime nation was primarily from ships where typically the risk is “mobile” and of a “finite” quantity. Since then, a concerted international effort to improve the safety and quality of maritime oil transportation has resulted in a dramatic reduction in the frequency of oil spills from tankers. Over the same period the upstream oil industry has moved into new regions often full of new operational, political and environmental challenges.

Sometimes things go wrong, as we have observed in the Montara Incident (Australia NW Shelf, 2009) and even more dramatically in the Macondo incident (Gulf of Mexico, 2010).

These events have highlighted an underlying shift of oil spill risk focus, away from the traditional ship borne “mobile / finite volume” risk to one which emanates from a known, fixed location and a volume which in some cases may be only limited by the length of time it takes to contain the leaking source.

The Risk Assessment is therefore a critical foundation upon which to build the appropriate levels of preparedness. Having analysed the risks the IMO model leads us to two principle methods of risk management, namely by reducing the likelihood of spills through spill prevention measures or by reducing the consequence of spills when they do happen through preparedness measures. Spill prevention measures are outside the scope of this paper and so from hereafter I will only concentrate on preparedness measures needed to mitigate the impact of spills.

Preparedness measures are the central tenets of the OPRC convention and can be distilled into the following core elements:

- Legislation and regulation
- Contingency Planning
- Response resources (equipment AND people)
- Training
- Exercising

In the aftermath of the Macondo and Montara incidents there have been a wide range of reports, lessons learned, findings and recommendations, many of which have been published and are publically available. In July 2010 the international oil industry formed three task-forces to consider the lessons to be learned from these incidents in terms of prevention, well intervention and oil spill response and in this latter field, 19 wide-ranging recommendations were published almost one year ago in March 2011. Since then a Joint Industry Project (JIP) has been formed to implement these recommendations and OSRL is, or will be, involved in the delivery of many of these outcomes, as can be seen when we look in more detail at the elements of preparedness.

Legislation and regulation – Regulators around the world are examining the industry approach to spill planning and preparedness. Of particular interest is the regulators stance in respect of the offshore exploration and production sector. In Europe regulators have typically employed a safety case regime where the onus is placed on the operator to identify the salient risks and implement appropriate mitigating measures which have to be approved by the regulator. In other regimes a more prescriptive planning regime has been in place where response measures are quantified and mandated according to state and federal laws. What is clear is that there is now a global shift of expectation towards mitigating the Worst Case Scenario identified in the Risk Assessment rather than just the most probable credible spill scenario previously identified.

Contingency Planning – Following Macondo there is increasing pressure on operators to establish response measures for a Worst Case Scenario within their contingency plans for every risk bearing

location. Sometimes this pressure is not related to the identified risk and if left unchallenged, could result in a proliferation of response equipment without a coherent structure to follow. Now, more than ever the industry must champion the Tiered Preparedness and Response Model (IPIECA, 2007), which identifies the drivers for building response capacity based upon operational factors, location / setting factors, legislative requirements and the availability of resources already in place. This methodology encourages a risk-based approach of which OSRL forms a central part, as one of a small group of industry-owned Tier 3 response providers. The key is to provide a seamless escalation of response capability where the local Tier 1 can be supplemented by a regional Tier 2 capability which in turn can be supplemented by established Tier 3 resources such as OSRL. “Seamlessly” is the key word and OSRL is currently developing relationships and MoUs with independent and commercial Tier 2 organisations to ensure a smooth escalation and transition of response capability for major incidents.

Combating resources – When people think of response resources there is a natural tendency to focus on oil spill equipment hardware as a shiny, tangible, physical demonstration of investment in response capability. In reality equipment provision is only a part of the solution which counts for nothing without the investment in trained people and management systems to bring about effective response. It must also be recognised that equipment is not just a one-off capital purchase to plug an identified gap, but is viewed as an ongoing commitment to provide equipment (and spares) appropriate to the risk, that can be moved easily and deployed by trained and available people. Equipment will need to be used in training exercise and will therefore require replacing periodically as wear and tear takes its inevitable toll which should be factored into an ongoing operational budget.

Training – Remains a critical factor in response success, not just in equipment deployment but also in respect of the management issues that a spill presents. Oil handling facilities, and other operations involved in operations that may have a spill risk need to undertake a training-needs analysis to identify the demands for operational and management training. Some countries have established their own legislative requirements for oil spill training under the auspices of the OPRC Convention whilst elsewhere the IMO model training course provide a useful benchmark of established international training standards. As with maintaining equipment, training should be viewed as an ongoing commitment to sustain the response capability. As with any discipline which is not a regular part of the day-job there will be a need for ongoing refresher training as well as a recognition that people regularly change job-roles or otherwise move on and are replaced, diluting the impact of previously held competence over time.

Exercises – When plans are in place and training has been conducted it becomes necessary to test the response arrangements through an exercise. There are different models of exercises which can be adapted to any given scenario depending on the objectives of the exercise, but a typical approach is to start small and prove the basic elements of the response (e.g. equipment deployment, notifications as per the contingency plan etc) before moving onto more ambitious exercises involving a wider network of plan stakeholders. A key concept to remember is that an exercise is a learning opportunity with an opportunity to influence or otherwise enhance the plan based upon actual use of the plan in exercise conditions. There is danger in using an exercise as a demonstration to “show off” response capability in a highly scripted running order as this may lead to a false sense of security and misplaced trust in the plan.

Implications for OSRL – There is much talk of a new paradigm for oil spill response in the post Macondo world and indeed, in less than two years since that event began, there has been some significant shifts in our organisation, not least in the dramatic growth in the number of our trained responders. Our involvement in that incident lasted twelve months and highlighted the problems of maintaining a sustained in-country presence over such a prolonged period. Whilst the response was ongoing the OSRL Board, quickly recognising the pressures that were building up within the organisation, approved the immediate recruitment of another 16 responders to our Service Level Agreement. Further to this, throughout 2011 and into 2012 many additional new recruits have entered the organisation to service the ever-growing demand for preparedness service to our members in the form of training and consultancy services. Our policy is to grow our response expertise largely from within, which requires some lead-time to train a raw-recruit into a valuable response specialist, whether they remain in response operations or pursue a career in preparedness services.

Our membership has also grown as more and more energy companies, large and small, see the pitfalls of not having access to an adequate Tier 3 response service. Our members, existing and new, are even more sensitised to the issues of spill response and are now predisposed to activate our services early (which is a good thing). When they do have an oil spill, even a relatively minor one, their tendency in these is to demand mobilisation of their full entitlement of SLA people and equipment which may turn out to dramatically exceed what the actual situation ultimately requires.

Our members are also being more proactive in their exercise plans and involving us more frequently, and to a greater extent in their notification and incident management exercises (which is another good thing).

New areas of the world are opening up for oil exploration and production in South America, West and East Africa and the former Soviet Union to give just four examples and with this activity we find further demands for our preparedness services which is well matched to OSRL's desire to be closer to its customers through an expanding network of regional representatives and local offices.

There are also a number of new and significant industry projects which are demanding of our expertise and which are of benefit to our organisation. OSRL has become the facilitator of the OSPRAG well-capping device, access to which is now a regulatory requirement for operators who are active on the UK Continental Shelf and is in discussions regarding the wider industry Subsea Well Response Project.

The main challenge we face is to grow the organisation quickly and efficiently to meet the ever growing demands and expectations of our members and the wider network of stakeholders, whilst not losing focus on the values upon which our reputation has been built – customer focus and a broad range of response services.

In conclusion I would observe that in the post Macondo world there is much focus on change to prevent similar incidents from ever happening again or mitigating the consequences if they do. With all this focus now rightly devoted to the offshore exploration and production risks we should be mindful not to be complacent or to overlook the traditional shipping source risks, which although now much reduced, have not been completely eliminated. Whilst humans still control ships at sea accidents can still happen as we saw dramatically illustrated with the Costa Concordia incident in

Italy only a few weeks ago. We must therefore remain vigilant and prepared with proven and tested plans in place, ready to respond whenever the worst happens.