

Risk Assessment and Resource Planning in Oil Spill Preparedness and Response

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The approach to risk assessment and its mitigation has changed significantly post Macondo, a tragedy that has become a watershed for the industry and a resolve to ensure there is never a repetition.

Prior to Macondo, the shape and scale of the approach oil spill response preparedness and response had been determined by the marine transportation oil spills through the later decades of the twentieth century. The frequency and severity of these maritime oil spills lead to a range of regulatory and industry initiatives including international conventions, changes in vessel design, development of crew competency training as well as a broad acceptance that national governments are better placed to have national contingency plans in place and to lead the response to a major oil spill in their jurisdiction. The result of all these initiatives was a steady decline in the number of major maritime oil spills through the late nineteen nineties to the present time.

The upstream industry, sustained by a long track record of offshore drilling without serious incident, operated under this paradigm until the Montara (Australia, 2009) and Macondo (Gulf of Mexico, 2010) incidents highlighted the particular challenges to oil spill preparedness and response that exploration and production activity can bring.

The intent by the industry in the last five years on strengthening oil spill preparedness and response capability for upstream activities has been highlighted by the collaboration across the Joint Industry Project (JIP) work groups and the significant investment in developing an industry subsea intervention capability.

Contingency planning has become more structured and detailed. A comprehensive understanding of risk ensures that areas or resources under threat from an oil spill are identified, the most appropriate response strategies are developed and resourced and, that there is the opportunity to engage with the relevant stakeholders in advance of any activity. A scenario-based approach to contingency planning gives flexibility in determining the threats that an oil spill presents to an operation and, importantly, ownership in the accurate assessment and mitigation.

The lengthy (and often unusable) contingency plans focused on regulatory approval have evolved into more fit for purpose and functional plans. A portfolio of contingency plans including site specific plans, tactical response plans and logistics plans provides **a more holistic and pragmatic capability to mitigating risk**. Ensuring that resources identified in a plan do exist and informing when there is a change has also become more evident. 400

The high level approach to resource planning using the nine box square to determine whether an oil spill was Tier 1

Resource Planning 250

- High level tiered approach 9 box matrix defined the three tiers – more evolved description of the capabilities required to respond and what may be available locally and what may be required to bring. The implied step by step approach by the matrix has led to greater thought into the rapid cascading of the resources and the intent to hammer the incident spill quickly.

Incidents as the core of the wheel.

Simplistic view - Incident management encounter rate

subsea

Look Head / challenges 150

- Lens shifting from e&p to looking over our shoulders
- No matter the rigour of the process, it is the eyes of the assessor that count
- Scenario based preferred but depends on the person having the judgment / experience to the judgment to understand what the context is
- \$50 oil, it will be interesting to see if the post macondo rigour is advanced maintained; look at the jip, you see the ioc's very much as the drivers of this change, one hopes that these innovators and early adopters will be followed by the majorities 19 involved in JIP but how many oil companies are there globally?
- ;Regardless of the provenance of a spill Risk has real consequences – prestige or hebeu fact
- We see spills first and foremost as environmental disaster rather than social or economic impact; w

there was almost equilibrium between oil spill risk and mitigation

- Risk pre macondo
- What was undertaken pre macondo – reduced
- The watershed
- Stakeholders / finance 150 / worst case from rosie