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BP's Deepwater Oil Spill - Industry Task Forces Report - and Open Thread

Posted by Gail the Actuary on September 12, 2010 - 10:50am
Topic: Environment/Sustainability
Tags: american petroleum institute, deepwater horizon, oil spill [list all tags]

In response to the Deepwater Horizon oil spill, four industry task forces were formed, to look into better ways of preventing oil spills in deepwater locations, intervening when an oil spill does occur, and responding to oil that has been spilled. This week, two of the task forces made their reports; the other two task forces had made their reports in May. The American Petroleum Institute issued a briefing paper on the reports.

The Subsea Task Force made 29 recommendations, which can be found in this report. One of the major recommendations was the formation of a Marine Well Containment Company (CC). Such a company has already been started by four of the major oil companies, as discussed in previous posts. Some of the things the CC is expected to do initially, in order to provide near-term response capability are the following:

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es, as discussed in previous posts. Some of the things the CC is expected to do initially, in order to provide near-term response capability are the following:

> - inventory equipment and capability that has been proven fit for purpose through use in response to the Macondo blowout and acquire all appropriate equipment into a Containment Company;
> - review the services and contractors that are advertising immediate containment capability and contract those best able to deliver near term response to the Containment Company;
> - review available equipment for containment that is available “off the shelf” from manufacturers and acquire appropriate equipment; and
> - review vessels and vessel contracts from the Macondo response and contract for those vessels necessary to provide near term containment response.

A sample of a few of the other action items of this task force include:

> 2. Ensure that a lower marine riser package (LMRP) can be removed from lower blowout preventer (BOP) using a surface intervention vessel and remotely operated vehicle. This will allow access to the mandrel on top of the BOP and the installation of subsea containment assembly.

3. Ensure effective methods to release LMRP without riser tension.

4. Remove damaged or non-functioning BOP stack to allow installation of a new BOP on the wellhead housing, or the subsea containment assembly (Note: this capability is available now).

5. Regain full control of BOP stack by pulling and repairing the LMRP/pods and rerunning the LMRP (Note: this can be done now). Research and develop ways to regain control over all important BOP functions in the case where the LMRP is damaged and cannot be removed and in cases where the LMRP is removed but cannot be repaired and re-run.

The other task force making a report last week was the Oil Spill Preparedness and Response Task Force. The summary of findings of this group includes the following:

Oil spill response plans for each industry sector (storage facilities, marine transfer facilities and vessels, pipelines, and offshore facilities) are intentionally as standardized as possible. This improves the ability of government, industry and responders to prepare for events and implement an effective response. However, areas for improvement were apparent. Specific suggestions are made to improve 1) the speed with which the response can be "ramped up," including modular response strategies in areas such as Area Contingency Plans and Vessels of Opportunity 2) spill response plan content and structure, 3) the role of regulatory agencies, and 4) training and exercises for large spill events.

Oil sensing and tracking was a critical element in the DWH response. A variety of methods for the remote sensing of surface oil were successful at the DWH incident, but there are still opportunities for improvement. A methodology for subsurface remote sensing does not exist and is needed. In addition, improvements are needed in the connectivity between remote sensing data and trajectory modeling, with the goal of developing standardized protocols.

Dispersant application, both surface and subsurface, was a critical element in preventing significant oiling of sensitive shoreline habitats during the DWH response. However, misperceptions and knowledge gaps led to unanticipated restrictions on dispersant use. Industry and government both need to communicate the risks and benefits of dispersant use, as well as the safety and effectiveness of dispersant products. Furthermore, additional research should focus on the behavior and long term fate of dispersed oil in the water column when dispersants are applied near the sea floor.

In situ burning was a highly valuable component of the DWH response ththat would not have been possible without the research and regulatory changes of the past 20 years. However, in situ burn technology remains limited by the performance parameters and similar to dispersant use, misperceptions and knowledge gaps led to delays in utilizing in situ burning and resulted in missed opportunities to remove more oil from the water.

The basics of **mechanical recovery systems** have not changed appreciably over the years, but incremental improvements continue to be made. While containment and

removal is the preferred option, when possible, the practical limitations of such equipment need to be recognized and improvements to function in high sea states and currents are needed. Large skimmer systems also performed well in general, and there was no shortage of local storage capacity. Areas for improvement include continued incremental improvement in boom and skimmer design and a revisiting of the Effective Daily Recovery Capacity (EDRC) calculation for skimmers.

Shoreline protection and cleanup prevents or reduces the environmental effects of spilled oil once it reaches the shoreline. The basics of shoreline protection and cleanup have changed little over the past 20 years, but the knowledge of how and when to effectively collect oil has greatly increased. Some individual state and local actions, which were well-intentioned but in some cases potentially damaging to the environment (such as unnecessary and ineffective booming), need to be avoided through education, strengthened command and control protocols, and local involvement in planning efforts to ensure a cooperative joint response effort. In addition, the lack of trained and experienced individuals available to lead shoreline cleanup activities during the DWH Incident also demonstrates an area that needs addressing.

While the DWH response relied on proven technologies, the potential for new, or **innovative alternative response technologies** was a key consideration. Early in the response, an active program solicited and field tested technologies that demonstrated promise. This was later supplemented by a federal initiative, the Interagency Technology Assessment Program (IATAP), coordinated by the USCG R&D Center. Proven technologies specific to the DWH incident included the subsea injection of dispersants, the use of dispersants to dissipate concentrations of volatile organic compounds, and high capacity skimmers. Clearly, continued support of innovation in oil spill response is in the best interest of all stakeholders, but there must be a clear process and responsible organization to manage ideas.

The report went on to provide a list of action steps related to each of these areas.