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OIL SPILL RESPONSE – SAFEGUARDING OUR OCEANS

There is a growing emphasis on the link between social and environmental concerns and business practices, as societal expectations change.

The offshore petroleum industry is facing challenges as investors are shifting their resources from petroleum to renewable energy sources, and workers are transitioning to renewable energy careers. It is crucial for the global economy and society as a whole to sustain offshore petroleum production in the medium to long term. However, there is a conflict between the demand for replacing petroleum and the difficulty in finding viable alternatives to petroleum for all its current uses.

The offshore petroleum industry places a great emphasis on preventing oil spills. Although major oil spills like the Macondo (Deepwater Horizon) incident in the Gulf of Mexico in 2010 are rare, there is still a possibility of oil spills happening as a result of offshore petroleum activities. The consequences of a large-scale spill can be severe, having negative impacts on the environment, society, and economy.

The magnitude of a potential oil spill necessitates collaboration between governments and industries across countries. The scale of the response capability needed for such a disaster has led to the creation of a unified global oil spill response industry.

WHAT IS OIL SPILL RESPONSE CAPABILITY?

When considering oil spill response capabilities, the assets used in implementation can include:

- equipment for the recovery of spilled oil, such as skimmers and booms
- vessels to mobilise equipment to the site of a spill and to transport recovered oil ashore for disposal
- aircraft to spray aerial dispersant
- satellite imagery, aircraft and drones to monitor a spill
- equipment to clean up oil if there is a shoreline impact
- technology for predicting the trajectory of an oil spill
- a drilling rig to drill a relief well or a “capping stack” that is installed over a blown out well to prevent the ongoing release of oil from a well.

Capability also includes trained personnel to implement the response by undertaking activities such as operating the above equipment and managing the response to a spill.

The response capability includes organisations that implement an oil spill response and comprehensive arrangements between industry and government to manage the response to an oil spill, extending beyond on-water response activities.

THE ROLE OF OSROS

Petroleum companies have access to both internal and external resources for oil spill response capability. External sources include the resources of other petroleum companies that can be made available through mutual aid arrangements. However, it is more likely that the required resources will be provided by an Oil Spill Response Organisation (OSRO) through an agreement between the petroleum company and the OSRO. OSROs are crucial in protecting the marine environment by mitigating the impact of offshore petroleum and maritime (shipping) spills.

OSROs are specialised entities that possess the necessary resources to respond effectively and promptly to oil spill incidents. These organisations are equipped with trained professionals, oil spill response plans, and state-of-the-art equipment to manage oil spills of varying magnitudes. OSROs work closely with their clients, the oil companies, government agencies, industry stakeholders, and community groups to ensure a coordinated and efficient response to oil spills.

THE KEY FUNCTIONS OF OSROS

- 1. Preparedness:** OSROs work together with oil companies to create detailed plans for responding to oil spills in various scenarios. These plans involve evaluating the potential risks, pinpointing sensitive areas, and preparing strategies for effective response. Regular training exercises are conducted to ensure that the spill response teams are always ready to act, and demonstrate their compliance with regulatory obligations.
- 2. Response:** OSROs are equipped with specialised equipment to quickly respond to oil spills, minimising oil spread and mitigating harm to the marine environment.
- 3. Environmental monitoring:** After an oil spill, OSROs conduct thorough environmental monitoring to assess the extent of damage and track the recovery of affected ecosystems. This information is valuable in directing restoration efforts and enhancing future response strategies.
- 4. Research and innovation:** OSROs make investments in research and development to improve their ability to respond to oil spills.

Drake Energy & Maritime Consulting prepared a series of reports for NOPSEMA and the Australian Department of Industry Science and Resources. This included an analysis of the future risk landscape for the Australian offshore petroleum sector, a review of international best practice in OSPR frameworks, the development of recommendations for potential changes to the Australian OSPR framework and a cost benefit analysis.

For a discussion on how we can assist you contact Rod Johannessen (Director/Principal Consultant)

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THE IMPORTANCE OF OSROS

- 1. Environmental protection:** OSROs are critical in minimising the environmental impact of oil spills. They protect marine life and coastal habitats from the effects of oil pollution.
- 2. Community and economic preservation:** Coastal communities and industries that rely on clean oceans benefit from the rapid and effective response provided by OSROs. A timely response helps reduce economic losses and preserves the livelihoods of those dependent on the marine environment.
- 3. Regulatory compliance:** OSROs function based on the Oil Spill Response and Preparedness (OSPR) frameworks. These frameworks mandate oil companies to have an oil spill response plan in place. Adhering to these regulations ensures that the responsible oil companies are held accountable for their spill response and environmental cleanup efforts.

A GLOBAL FOOTPRINT

The integration of the global oil spill response industry is facilitated by the Global Response Network (GRN) which consist of OSROs from around the world. The GRN exists to share information, improve spill response performance and provide centres of expertise in spill preparedness, response and recovery techniques. The key OSROs that provide response capability to the Australian offshore industry are AMOSC (Australian Marine Oil Spill Centre) and UK headquartered OSRL (Oil Spill Response Limited). AMOSC operates from bases in Geelong and Fremantle and OSRL can supply response equipment and personnel from international bases.