



**MEDITERRANEAN ACTION PLAN (MAP)
REGIONAL MARINE POLLUTION EMERGENCY RESPONSE CENTRE FOR THE
MEDITERRANEAN SEA (REMPEC)**

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**NEW CHALLENGES IN OIL SPILL RESPONSE FOR MEDITERRANEAN STATES
ENGAGED IN OFFSHORE ACTIVITIES**

Submitted by Cyprus

SUMMARY

Executive Summary: This document presents the challenges for coastal states engaged in offshore exploitation, and proposes the adoption of a regional response strategy within the Offshore Protocol.

Action to be taken: For information only.

Related documents: None.

Introduction

1. The expanding offshore oil and gas exploitation activity in the Mediterranean Sea increases also the risks for marine pollution and imposes to Mediterranean States new challenges in risk assessment, contingency planning and in oil spill preparedness and response strategy.
2. Past offshore accident analysis and experiences have shown that oil spills originating from offshore installations can differ substantially from ship or other coastal accidental oil pollution. This is due to the fact that offshore installations have the potential to release larger quantities of oil at sea, which in severe cases can last for a prolonged period of time.
3. The recent blowout of the “Deepwater Horizon” offshore platform in the Gulf of Mexico, often called also as the “Macondo” incident, where an estimated of 780,000 tonnes of oil were released into the sea, has alarmed and reminded the international community in the most dramatic way of the extended risks and dangers associated with offshore exploitation activities. Moreover, this incident has evidently showed that the capabilities of coastal States and oil industry to act rapidly and efficiently to minimise and extinguish the uninterrupted release of oil, but also to recover it from the sea, were by far exceeded.
4. It is widely accepted that the offshore industry maintains a high level of safety standards, and the risks can be generally maintained at low and acceptable levels. However, as long as the consequences and potentials of offshore oil spill incidents remain hard to predict, countries need to adopt and upgrade their oil pollution response strategy and capacity, preferably along with the oil industry, in the endeavour to meet the complex offshore mppr requirements.
5. This information paper aim to determine the new challenges for Mediterranean countries engaged in offshore exploitation. It emphasizes the compelling need for adopting a new framework to determine risks and to adopt national contingency planning and oil spill response capacity to the complex response techniques, as this is required in deep see and remote located offshore locations. This document is focusing on the dangers associated with the offshore exploitation of oil. The

exploitation of natural gas and the associated dangers remain subject to further examination and attendance.

Regional and international regulatory framework for marine pollution preparedness and response

1. At international level, the United Nations Convention on the Law of the Sea (UNCLOS) extends the rights of Contracting Parties with regard to exploration and exploitation in their Exclusive Economic Zones (EEZ) and enables them to establish drilling installations with safety zones. It also calls on States to *“take jointly or individually all measures consistent with this Convention that are necessary to prevent, reduce and control pollution of the marine environment”*.

2. The Offshore Protocol to the Barcelona Convention for the Protection of the Mediterranean Sea Against Pollution Resulting from Exploration and Exploitation of the Continental Shelf and the Seabed and its Subsoil calls on Contracting Parties to *“take individually or through multilateral cooperation, all appropriate measures to prevent, abate, combat and control pollution in the Protocol area”*. The Offshore Protocol imposes also to operators of offshore installations to have in place contingency planning for combating accidental pollution coordinated with the (national) contingency plan of the contracting party.

3. For Mediterranean EU Member States, the recently adopted EU Directive 2013/30/EU of 12th June 2013 on “Safety of offshore oil and gas operations” provides additional legal powers and obligations in order to reduce as far as possible the occurrence of major accidents relating to offshore oil and gas operations and to limit their adverse consequences, thus increasing the protection of the marine environment and coastal state’s economies against accidental oil pollution. The Directive establishes also minimum conditions for safe offshore exploration and exploitation of oil and gas and limiting possible disruptions to Union’s indigenous energy production, and aims to improve the response mechanisms in case of an accident.

Marine pollution preparedness and response (MPPR) basic principles (vessel sourced and land sourced pollution) and fundamental considerations

1. The main MPPR philosophy in respect to accidental releases is mainly guided by the following principles and priorities:

- ▶ Limiting and stopping the oil at the source of discharge;
- ▶ Containing the oil, preferably at the source (i.e. with containment booms);
- ▶ Recovering the oil from the sea, preferably with mechanical means (i.e. with oil skimmers and oil recovery vessels), and
- ▶ Delivering and discharging ashore at appropriate facilities (with oil recovery vessels).

2. Although these principles are theoretically applicable also in cases of accidental offshore oil releases, there are special conditions and considerations which have to be taken seriously into account. These considerations are correlated mainly:

- (i) in the prolonged discharge of large volumes of “fresh” oil directly from the well with probably a higher flash point and volatile organic compounds (VOC) emissions;
- (ii) the remote location from the shore and
- (iii) deep sea conditions, which require additional and technically more advanced MPPR practices.

In response to these considerations, the following response techniques are deemed to be the most appropriate:

- ▶ Spill source control through special (capping) devices;
- ▶ Dispersant application directly on top of the well in the subsea bed;
- ▶ Large scale dispersant application at sea surface from air and sea;
- ▶ “In situ” burning.

3. Notwithstanding the above, any of the above options and techniques require special knowledge, sophisticated equipment, seagoing and specialized vessels. They also need to be carefully planned and to take into account the limitations and possible consequences (i.e. with the use of large quantities of dispersants). In addition, most of the above techniques require costly investments, which are difficult to implement at national level.

Coastal/Near coastal versus offshore deep sea MPPR capacity

1. Countries maintain mainly MPPR resources capable of responding to near coastal from shipping accidents and have no or insufficient capacity in offshore MPPR operations. As a rule, national MPPR equipment and stockpiles comprises usually of multi-purpose vessels, harbour and open sea booms, skimmers, pumps, power packs, dispersants and sorbent material.



2. Consequently, beside the non-existence of proper equipment and adequate resources, countries do not also have experiences and specialized training for responding and dealing with offshore deep sea response operations.

Conventional obligations of the oil/offshore industry

A. Risk identification and contingency planning

1. Within the framework of international conventions and regional agreements, licenced operators of offshore installations are required to accomplish systematic risk management to prevent residual risks, including oil spills. They are also required to have contingency planning, in alignment with the national contingency plan of the coastal State. In the operator's contingency planning, the use of third parties and external resources must be adequately addressed. In practise, TIER 1 equipment is usually in place at the production platform, while TIER2/TIER3 are assigned to subcontractors and specialised oil response companies.

B. Liability and compensation for environmental damage

1. Liability and damage compensation from offshore exploitation is not internationally regulated and it remains an outstanding issue. It is up to the national States to determine the requirements for ensuring that licenced operators are financially liable. As exploitation activities grow, there is a need for either a regional or international approach and solution to this matter.

Large scale application of dispersants as an option to offshore oil spill response in the Mediterranean

1. Mechanical recovery consist for most of the countries the preferred oil recovery technique, with chemical dispersants to rank second in row. However, the catastrophic potential of a major offshore disaster along with the confined area of the Mediterranean Sea but also the fear for endangering other neighbouring coastal States make the adoption of this technique one of the most considerable options. From the technical point of view, dispersant application is generally allowed in deeper sea waters. The large scale application from the air require specially equipped aircraft.

2. Second and third generation dispersants tend to be less toxic to the marine environment, but their ability to disperse effectively the oil, depends on many physical and chemical factors such as the viscosity of the oil, weather and sea state, ambient temperature and the weathering of oil. The

selection of the most appropriate dispersant for a given situation depends also on knowledge, skills and experience of the oil spill responder.

3. As most of the countries maintain rather limited stockpiles of dispersants, mainly for dealing with small to medium oil spills, it is necessary to adopt a regional dispersant strategy, to identify the possible strategic location of a regional dispersant stockpile and to assess and examine the available dispersant application capability within the Mediterranean Contracting Parties.

Challenges in respect to marine pollution response in offshore sourced pollution

A. Risk Assessment

1. Existing contingency of coastal States relies usually on data and risk analysis from ship traffic data and oil cargo quantities transferred in and out of the country.

2. To determine however the potential consequences of an offshore oil spill, a country is required to take into account the additional risks arising from offshore exploitation and also to gain knowledge and experiences obtained from past offshore accidents.

B. Other or additional MPPR equipment and response techniques for remote deep sea oil spill response operations

1. Although MPPR offshore response techniques appear to be similar to those of ship source pollution, the larger quantities of oil at the source of offshore installations, the deep sea conditions and remote location of these installations require more appropriate equipment, different response techniques and by far more sophisticated logistical arrangements.

C. International and regional co-operation and arrangements

1. One of the most valuable experience gained from past offshore accidents and specifically from the Macondo incident, was that only a selective joint effort of the international community along with the oil industry can warrant a rapid and efficient response against a major offshore oil pollution disaster. As a consequence, it is worth to build-on an action plan and a regional cooperation MPPR framework within the Barcelona Offshore Protocol, preferably along with other stakeholders.

Conclusions

1. Offshore exploitation activities increase the risk and potential for a major oil spill incident. As such, it creates new demands and challenges to Mediterranean countries which must not be underestimated.

2. A comprehensive regional response strategy and framework between Contracting Parties to effectively deal with the potential dangers must be developed at regional level along with the offshore industry.

3. The cooperation with the offshore industry must be further developed, however, without undermining the industry's obligations to maintain proper and adequate MPPR arrangements and financial liability.

4. Common training programmes and common combating exercises must be established between the offshore industry and the Mediterranean countries.

Action to be taken

The meeting is requested to take note of this submission and act as necessary.