

Interspill 2004 Conference and Exhibition on Oil Spill Technology "National Oil Spill Preparedness - Who pays?"

Senior Consultant Hans-Martin Førsund, *Cand. Jur.*

E-mail: hans.martin.forsund@dnv.com

DNV Consulting
1322 Høvik, Norway

Abstract

The guidelines for layout and the schedule for delivery of manuscripts are described.

Proper National oil spill preparedness requires a multitude of actions to be taken, during planning, in the establishing phase and during maintenance of the preparedness. Our experience with development of National oil spill contingency plans indicates that the financing aspects of a National preparedness system are sometimes not sufficiently considered. This could mean that inadequate financing mechanisms are established, and that a well intended system fails to operate due to lack of funds.

This paper highlights areas in need for attention and provides an insight into essential elements, as well as an overview of legal frameworks and principles for financing of a National oil spill preparedness system. It also describes the financing system of some of the existing national preparedness systems in the world today, and it gives recommendations based on the current situation.

1 Introduction

1.1 Background

Oil spill catastrophes like Exxon Valdez, Braer, Erika and Prestige remind us that there are huge costs involved as a consequence of spills. Still, the costs vary a lot; Exxon Valdez is so far the most expensive at US\$9.5 billion, while the costs were “only” US\$83 million for Braer (*ITOPF, 2004*). They also remind us of the necessity of developing and maintaining preparedness against oil spills, although the costs of doing that are rarely mentioned.

In fact, international regimes have been established on liability and compensation to recover the costs involved in spills, while recovery of the costs associated with oil spill preparedness is hardly an issue in the current international regimes. As a consequence, it is the responsibility of each state to deal with the costs of maintaining an oil spill preparedness system.

Evidently, no preparedness system will be well functioning without proper funding. Based on our experience¹, it is the intention here to stress the need to spend some efforts on developing viable funding mechanisms at the national level for the oil spill preparedness.

¹ DNV has been involved in oil spill preparedness and response and related topics for more than a decade, and has managed and assisted in the preparation of several national oil spill contingency plans, including the Philippines, Indonesia, Sri Lanka and for the South Mediterranean Sea. DNV has also developed contingency plans for all the major oil companies operating in Norwegian waters. The approach is cross-disciplinary and hence includes safety, environmental and legal & institutional aspects. In addition, DNV carries out third party testing/verification and certification of oil spill response technology, and provides assistance with regard to oil spill cleanup, remediation of contaminated sediments and soil, waste reception and treatment of oily wastes. Moreover, DNV also assists in preparing Shipboard Oil Pollution Emergency Plans (SOPEP) and has a dedicated Emergency Response Service (ERS) for vessels that have suffered damage caused by collision, grounding, structural failure, fire, explosion etc.

In addition, it is also the intention to indicate that efforts can be done at the international level.

2 Funding of Oil Spill Preparedness v. Funding of Clean-up Operations etc

In connection with funding mechanisms, it is important to understand the difference between the funding (or cost recovery) of clean-up operations and the funding of a national oil spill preparedness system.

The costs of clean-up operations and other consequences of oil spills are to a large degree recovered via the international regimes established by the Civil Liability Convention (CLC 92) and the Fund Convention (Fund 92). Basically, the CLC convention is supposed to recover costs up to a certain level, while the Fund convention is supposed to cover the rest (up to the ceiling amount). While CLC is insurance based (P & I Clubs), the Fund is based on contributions to a fund (administered by IOPC Funds) from those receiving oil cargoes. The regimes established by the two conventions are co-ordinated and include similar requirements as to the type of costs that may be recovered. Basically, only costs generated by the incident may be recovered via the regime. Hence, the costs incurred by developing and maintaining an oil spill preparedness system will not be recovered via those regimes.

Developing and maintaining a national oil spill preparedness system requires a number of activities to be funded. While the development of a system can be funded as a stand alone activity (typically as part of Technical Assistance), the maintenance requires a system of regular funding. As no international regime for regular funding exists, a funding system has to be developed by each individual state.

3 The Significance of a Proper Funding System

3.1 Introduction

To illustrate the need for funding, a brief overview is given below of the main cost elements to be funded. Subsequently, some common challenges will be mentioned.

3.2 Overview of the main cost elements in an oil spill preparedness system

Oil spill risk assessment and maritime safety

A basis for assessments of maritime safety and of oil spill preparedness and response is to have identified the risks. The following should therefore be identified:

- High risk areas for ships (particularly collisions and groundings)
- Risks by petroleum activities
- The potential for oil spill

Secondly, routine surveillance and monitoring of the ship traffic may have both a safety and environmental effect. The following may be involved in such surveillance and monitoring:

- VTS (Vessel Traffic Services)

- Civilian airlines, military aircraft, air surveillance service, satellites
- Coast Guard and other Government vessels
- Offshore facilities

While oil spill risk assessment is an activity that usually needs to be carried out and funded once (in connection with the development of the preparedness system), the routine surveillance and monitoring of the ship traffic needs regular funding.

Prediction of Oil Spill Movements and Possible Impacts of Oil on Coastal Resources

Having identified the risks of accidents and the potential oil spills, it is also necessary to predict the fate of the oil, being subject to wind and currents.

To the extent that the oil is likely to drift towards land or towards sensitive resources at sea, it is necessary to identify the possible impact or harm any oil may have on the resources. To this effect the main environmental resources affected by oil spills should be identified, and a coastal sensitivity map should be developed.

In addition to the mapping of the main environmental resources, a resource database should also be developed. Such a database will provide the opportunity to gather and retrieve detailed data that not only can be used in connection with oil spill incidents, but also in connection with national marine resources management. The operation of such a database requires properly qualified personnel.

The prediction of the oil spill movements and the identification of the possible impacts of the oil, as well as the sensitivity map and the development of a database are activities that usually needs to be carried out once, while the data base needs to be maintained at a regular basis.

Oil Spill Response Capabilities

The oil spill response capabilities should be assessed on the basis of the oil spill risk assessment and the environmental impact assessment. The need for response capabilities would often require a National Oil Spill Response Centre to be manned 24 hours a day. Such a centre should be manned with properly qualified and authorised personnel. The centre would also need to be properly equipped with communication equipment and other equipment, and should preferably also have access to aerial surveillance.

In addition to a National Centre, local oil spill command centres should be established according to the needs of the various high-risk areas, and local response teams should be dedicated for those centres. The centres should also have access to proper combat equipment and products, as well as ships or barges for the recovered oil

The recovered oil would need proper handling, usually in refineries ashore.

The investment (initial) costs are major costs in connection with the oil spill response capabilities. However, the facilities and equipment have to be maintained at a regular basis, and so also the personnel. Hence, maintaining adequate oil spill response capability requires regular funding.

Training and Exercises

All personnel required for the different functions relative to oil spill preparedness and response need to be properly qualified and trained for their functions. In addition to the

initial qualification, proper training and regular exercises is necessary for the personnel, requiring regular funding.

3.3 Challenges

As there are no universal mechanisms developed to recover the costs of oil spill preparedness, the systems of dealing with such costs vary from country to country. In some countries the oil spill preparedness system is almost completely managed and funded by the public sector, while in others it is to a large degree dependant on private (industry) contributions.

Our experience from countries where the public role is intended to be dominant in the oil spill preparedness system shows that funding is often a problem. Public budgets tend to be unpredictable from year to year, and too low to support necessary personnel, activities and equipment. In such cases, it is a challenge to secure regular funding at the required level.

The most common way to secure regular funding at the required level is to involve or increase the private contributions to the preparedness system. In such cases, the next challenge will be how to involve or increase the involvement of the private sector. A number of questions will then have to be answered:

- Who should contribute to the system?
- How should they contribute?
- To the extent that foreign legal subjects are concerned, what is acceptable internationally, and what should be the national legal basis?

4 International Principles and Legal Instruments related to funding of Oil Spill Contingency Systems

4.1 The Polluter-pays Principle and the Principle of Internalization of Environmental Costs

The polluter-pays principle is a recognised principle of international environmental law. In the UNCLOS-82 (United Nations Convention on the Law of the Sea, *Ref. UNCLOS-82*), which includes general principles for all activities at sea, the principle is the basis for Article 235 on responsibility and liability. Its main application implies that those responsible for pollution must pay the costs of "*compensation or other relief in respect of damage caused by pollution*". As such, it is also the basis for the CLC -92 (*Ref. CLC-92*) mentioned above (Chapter 2 above), where the ship insurance (P & I Club) covers basically

- the cost of pollution abatement
- the costs of environment recovery and,
- the compensation costs for victims of damages due to pollution.

As mentioned in Chapter 2 above, the CLC does not cover costs related to the development and maintenance of an oil spill preparedness system. A main question is therefore whether the polluter-pays principle can be used at all as a basis for funding a contingency system.

The UNCLOS-82 does not include any principles for funding environmental protection measures (apart from compensation as mentioned above), but affirms that "*states have the*

obligation to protect and preserve the marine environment” (Art. 192), and that they are obliged to “*take, individually or jointly as appropriate, all measures consistent with this Convention that are necessary to prevent, reduce and control pollution of the marine environment from any source*” (Art. 194). It therefore puts a strong obligation on states to establish a contingency system.

A natural place to look for guidance is in the OPRC – 90 (the International Convention on Oil Pollution Preparedness, Response and Co-operation, *Ref. OPRC-90*), which is the main convention relating to oil spill contingency systems. In the convention the principle is mentioned “*as TAKING ACCOUNT of the "polluter pays" principle as a general principle of international environmental law*” (see introduction), leaving it unclear whether it should be used as a basis for oil spill preparedness systems or only for oil spill compensation. It is therefore necessary to look for guidance elsewhere.

The UNCED-92 (Rio Conference, *Ref. UNCED-92*), however, expands on cost recovery and funding mechanisms. It encourages states to “*develop economic incentives, where appropriate, to apply clean technologies and other means consistent with the internalization of environmental costs, such as the polluter pays principle, so as to avoid degradation of the marine environment*” (Art. 17.22).

“*Internalization of environmental costs*” implies basically that the environmental costs should be added into the costs of the product, and hereby letting those that are responsible for the costs bear the costs (*UNEP, 1995*). In UNCED-92 the polluter pays principle is used as an example of the principle, and the main message from this part of the UNCED-92, applied to contingency systems, is therefore that those that are responsible for the costs related to contingency systems should also bear the costs.

As a conclusion, it is therefore not the polluter-pays, but the principle of *internalization of environmental costs* and, if you like, a “*potential polluter-pays*” principle that should be the basis according to UNCED-92. Potential polluters give rise to the need for pollution preparedness, and should therefore pay for that pollution preparedness. This implies that international law (UNCLOS-82 and UNCED-92) accepts not only that polluters should pay, but also that potential polluters should pay – for the pollution preparedness.

4.2 Involving Ships in Pollution Preparedness Systems

Based on the UNCED-92 and the principle of *internalization of environmental costs*, there has been a tendency for many years to develop cost recovery and funding mechanisms, *involving those that are responsible for the costs*. It has been realised that such mechanisms play an important role in making viable the measures for protecting the marine environment.

Involving the oil handling industry, offshore units and sea ports in the pollution preparedness system is a cornerstone in the OPRC-90 and is common practice world-wide – directly with equipment and personnel, and/or indirectly via taxes or agreements with response organisations.

Involving ships however, is not very common – directly or indirectly, beyond the requirements of OPRC-90 and MARPOL 73/78 (SOPEP). There are several reasons for that, not least practical; many ships do not represent any constant risk of pollution to any particular state. Politically also, requiring contributions from ships might be hampering trade.

In addition, if the UNCED-92 speaks for contributions from ships, such contributions are not entirely supported by UNCLOS-82. On the one hand, it requires states to *protect and*

preserve the marine environment...and to take...all measures...that are necessary to prevent, reduce and control pollution... (see above). On the other hand, it strongly protects the rights of ships via the principles of *freedom of navigation* (Art. 87) *innocent passage* (Art. 17 and 21) and *transit passage* (Art. 38). According to Art. 26 “*charges may be levied upon a foreign ship passing through the territorial sea as payment only for specific services rendered to the ship*”. So unless charges (indirect contributions) for oil spill preparedness can be seen as *payment for specific services rendered to the ship*, foreign ships may not be charged payment when passing through territorial waters according to UNCLOS-82.

Although UNCLOS-82 does not necessarily support charges to foreign ships for oil spill preparedness, domestic ships are in a different position. They may be charged for oil spill preparedness if so decided by their flag state.

5 Existing Models for Cost Recovery of Oil Spill Contingency Systems

5.1 Introduction

Presently, a number of different cost recovery models exist world-wide. In the following, a summary will be provided of the cost recovery models of USA, Canada, Australia and Norway.

5.2 USA

(DNV, 2001)

The Oil Pollution Act of 1990 (OPA) addresses problems associated with preventing, responding to, and paying for oil pollution. It does so by creating a comprehensive prevention, response, liability, and compensation regime for dealing with vessel and facility-caused oil pollution in US navigable waters. Hence, operators of U.S. and foreign-flag vessels are generally prohibited from operating in U.S. waters without first demonstrating the financial ability to pay for pollution damages. The National Pollution Funds Center (NPFC) is responsible for issuing Certificates of Financial Responsibility (COFRs) in accordance with OPA 90 and CERCLA (a law that requires a tax on the chemical and petroleum industries). According to the regime, the costs associated with particular spills are in principle to be paid by the owner/operator (the Responsible Party, RP), while if the RP is unknown/refuses to pay, the costs are to be paid by the Oil Spill Liability Trust Fund (OSLTF).

The OSLTF receives revenue from four primary sources:

- **Taxes:** Initially, an oil tax (5¢ a barrel on domestically produced or imported oil) was collected from the oil industry. The tax, when authorized by Congress, is suspended when the Fund reaches one billion dollars but may be reinstated if the Fund falls below one billion dollars.
- **Interest on Fund Principal:** Most of the unused balance in the Fund accrues interest in U.S. Treasury investments.
- **Cost Recovery from Responsible Parties:** The person(s) responsible for oil spills are liable for costs and damages. Monies recovered are used to replenish the Fund.
- **Penalties:** In addition to paying cleanup costs, responsible parties may incur civil penalties. Payments for penalties are deposited into the Fund.

The Primary source for the Oil Spill Liability Trust Fund was a 5 cents per barrel fee on imported and domestic oil. The arrangement was replaced after 1994 by cost recovery by RP, fines and civil penalties collected.

Based on the information above, it is clear that the costs of oil spills are to be recovered via the OSLTF, but it is not clear whether also the oil spill preparedness system is funded via the same fund, or whether that system relies on other sources, e.g. public budgets.

5.3 Canada

(DNV, 2001)

The Canadian Coast Guard Marine Spills Contingency Plan. is based on the *Emergency Preparedness Act, Canada Shipping Act, the Arctic Waters Pollution Prevention Act, the Oceans Act*, and various inter-agency agreements.

A network of private sector owned and operated oil spill organisation (Response Organizations (ROs)) provide the industry with the ability to respond to its own oil spills up to 10,000 tonnes. The Canadian Coast Guard (CCG) sets the standards by which the ROs are certified, ensures their continuing compliance with those standards, and monitors response operations undertaken by ROs.

The Canadian CG maintains considerable preparedness capacity independent of the ROs.

This capacity is complementary to the industry regime, and provides for an immediate response capability when necessary, as well as response capability for offshore spills and spills north of 60° north latitude (the Arctic).

The principle behind the RO's is that potential polluters should bear the costs of preparedness for the environmental risk posed by their operations. Under the regime, designated oil handling facilities and all ships of a certain size are required to have an arrangement with a CCG-certified RO for the provision of a response in the event of a pollution incident.

Based on the above, it is clear that oil handling facilities and ships contribute basically indirectly to the oil spill response system via RO's.

5.4 Australia

(DNV, 2001)

The National Contingency Plan provides a national framework for responding promptly and efficiently to marine pollution incidents. The Plan provides for the integration of Commonwealth, State and oil industry resources. State, local and industry contingency plans support the arrangements.

The primary responsible party for responding to marine spills depends on the location of the spill. Offshore and at oil terminals, the party is the relevant oil company or operator, while in ports it is the responsible State/NT authority. For incidents originating from industry facilities, the industry is required to ensure the provision of resources so that an oil spill can be promptly and efficiently handled by the industry until backup resources can be deployed, if required. If the response is beyond the capability of the private resources (including the industry mutual aid arrangements), the responsibility is transferred to the respective State/NT through the National Plan State Committee, with assistance from AMSA as required.

The oil industry has developed a mutual aid arrangement (AMOSPlan) and has established a central stockpile of equipment (AMOSOC).

A levy is imposed on commercial shipping using Australian ports. The Acts imposing the levy apply to vessels which are not less than 24 metres in length, having at least 10 tonnes of oil on board either as fuel or cargo.

5.5 Norway

(DNV, 2001)

The Norwegian system for oil pollution preparedness and response is based on public as well as private participation and responsibility.

The Pollution Control Act, 1981, requires enterprises to provide contingency plans to be approved by the Norwegian Coastal Directorate, which is responsible for co-ordinating public and private preparedness into a national contingency system. The enterprises may be instructed to co-operate, e.g. through contingency organizations.

The Operators of offshore facilities are responsible for oil spill preparedness with access to response equipment and personnel from the Norwegian Clean Seas Association for Operating Companies (NOFO), as required.

The public preparedness comprises a municipal preparedness, which is a supplement to private contingency systems, and a central government preparedness. The Governmental preparedness comes into effect in cases of considerable acute pollution.

The oil industry funds a large part of the Norwegian system for oil pollution preparedness and response via NOFO. The public preparedness is financed via public budgets. Ships are not involved in the system.

5.6 Summary of Models

The table on the next page (**Table 1**) shows a summary of the oil spill emergency preparedness and cost recovery systems of USA, Canada, Australia and Norway.

Table 1 Summary of oil spill emergency preparedness and cost recovery systems
(DNV, 2001)

System	USA	Canada	Australia	Norway
Based on legislation	Yes	Yes	Yes	Yes
Mandatory NCP (part of legislation)	Yes	Yes	No	No
Required preparedness by oil industry	Yes, for a worst case discharge + evidence of financial responsibility	Yes, must have arrangement with RO's (up to 10,000 tonnes).	Yes, to handle oil spill promptly and efficiently until backup	Yes, to prevent, discover, stop, remove and limit the effect of pollution. Can be instructed to co-operate. Reasonable in size

Required preparedness by ships	Yes, for a worst case discharge, equipm. + evidence of financial responsibility	Yes, ships of certain size must have arrangement with RO's	MARPOL requirements	MARPOL requirements
Private response organisations	Yes, certified OSRO's	A network of certified RO's	AMOSPlan/ AMOSC	NOFO (offshore)
Secondary Public response	Yes, NRC/OSC above a certain amount	Yes, and offshore spills, and spills north of 60°N	Depends on spill location and size of spill	Yes, but depends on spill location and size of spill
Fund	Oil Spill Liability Trust Fund, Superfund	Domestic oil spill claims fund	National Plan Funds	No
Levy on ships	No, per barrel oil, replaced by fines and civil penalties	No	Yes, on ships than are at least 24 m & 10 t of oil, using A. ports	No
Tax on industry	Yes	No	No	No

6 Recommendations

To what extent should potential polluters be involved?

If potential polluters should pay or contribute to a national oil spill contingency system, a next question would be to what extent they should contribute

From the principle of *internalization of environmental costs* it can be derived (at least in my opinion) that the contributions from potential polluters should be according to their potential for pollution.

This implies that potential polluters should contribute to the national oil spill preparedness systems according to the risk that they represent (a risk based approach). Such an approach would imply that a pollution risk assessment should be the basis for the contributions from potential polluters.

Applied on ships, this means that ships should contribute according to the risk of pollution that they pose. Evidently, the risk of pollution is different for tankers than for other ships. A system of differentiation should therefore be developed on the basis of a risk assessment.

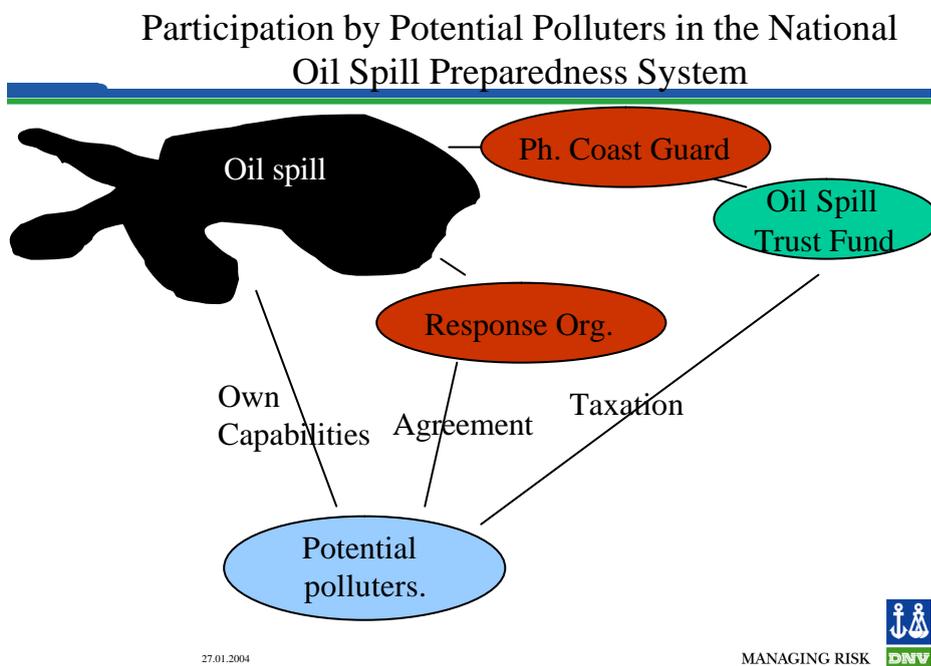
Therefore, it is suggested that an international system should be developed via IMO, corresponding to the Formal Safety Assessment regime already developed. Such a system would allow the establishment of a common basis for assessing the risk of pollution from ships that individual states could utilise in their national funding systems. It could e.g. be called the "Formal *Pollution Assessment*" regime.

As a basis for greater contributions from ships to oil spill preparedness systems, the UNCLOS-82 should be amended to reflect the UNCED-92 principle of *internalization of environmental costs*, and hence encourage states to charge contributions from foreign ships passing through territorial waters.

How should potential polluters be involved?

Some potential polluters would prefer to be involved directly in a national preparedness system via their own resources (equipment, personnel etc.), while others would prefer indirect contribution. If ships should contribute according to the risk of pollution that they represent, it is likely that most ships would need to contribute indirectly – via taxes or a response organisation, as direct contribution via oil spill equipment and personnel would not be very practical. A national oil spill contingency system should therefore allow both direct and indirect contributions. Based on the above, the figure below (Figure 1) illustrates how to involve potential polluters in a national oil spill preparedness system (DNV, 2001).

Figure 1 Involvement of potential polluters in a national oil spill preparedness system



Contributions from ships

Contributions from ships are a challenge, particularly from ships that are not domestic based or call the ports of the coastal state in question. As it can be seen in Table 1 (Ch. 5.6) USA, Canada and Australia have (or have had) systems for indirect contributions from ships, requiring either an agreement with a response organisation (Canada) or a levy on ships calling ports (Australia and previously USA).

Contributions from foreign ships only passing through territorial waters could seem more of a challenge. However, systems like the AIS (Automatic Identification System) and VTS (Vessel Traffic Services), combined with modern communication equipment (e-mail, internet) should make it possible with contributions also from that group.

7 References

- CLC-92 International Convention on Civil Liability for Oil Pollution Damage, 1992
- DNV, 2001 DNV report 2001-1009, the Philippine Coast Guard. National Oil Spill Contingency Plan (NOSCP), Appendix A, Legislation, Standards and Cost Recovery Mechanisms
- ITOPF, 2004 International Tanker Owners Polluter Federation Limited. The Costs of Oil Spills, (<http://www.itopf.com/costs.html>)
- MARPOL 73/78 The International Convention on the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto
- OPRC-90 International Convention on Oil Pollution Preparedness, Response and Co-operation, 1990, (<http://fletcher.tufts.edu/multi/texts/BH981.txt>)
- UNCED-92 The United Nations Conference on Environment and Development, 1992, Art. 17.22 (<http://habitat.igc.org/agenda21/index.html>)
- UNCLOS-82 United Nations Convention on the Law of the Sea, 1982 (http://www.un.org/Depts/los/convention_agreements/convention_overview_convention.htm)
- UNEP, 1995 UNEP NEWS RELEASE. Sniffen, Jim (Jim.Sniffen@unep.no), 7 Apr 1995 (<http://www.ee/lists/infoterra/1995/04/0000.html>)