

OIL SPILL RESPONSE IN INDONESIA

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Abstract

Directorate General of Sea Communication (DGSC) who is responsible for Sea Communication affairs which include Maritime Safety and Marine Environment Protection, together with all related agencies, took measures for the establishing of Oil Spill Response capability.

Presently, Indonesia has several legal instrument related to preventing and responding to oil spill at sea. The government of Indonesia established two oil spill response plan covering the oil tanker route passing through Indonesian waters from Persian Gulf to Japan and other countries in the North Pacific.

A draft presidential degree of the National Oil Spill Contingency Plan was provide coordinated by the office of the State Minister for Environment. This degree would define the composition structure of response teams at national, regional and local levels. The DGSC would be the lead agency, while Pertamina and other institution would be the supporting agency. The draft is not detailed but it's cover sufficiently the main requirement's of National Oil Spill Contingency Plan. Based on this plan and after its signing by the President, more detailed plan shall be establish to provide detailed instructions. DGSC has a Command, Control, Communication and Information (C3-I) system for Guard and Rescue Operation established in 1992. The communication system of National Oil Spill Contingency Plan is integrated with communication system of the Guard and Rescue Communication system.

Although the status of the National Oil Spill Contingency plan is still in draft form, its concept has been applied for regular exercises, including exercises with neighbouring states.

The benefits of the periodic exercise at all levels conducted have been very much help to Indonesia has to coordinate oil spill incident in the northern part of Malacca Strait. During the incident, the National Oil Spill Contingency Plan was activated the national coordination was conducted from the National Operation Centre for Oil Pollution (NOCOP) using the command, control, communication and information system of the command and control post for Maritime Safety Guard and Rescue System.

I. INTRODUCTION

Indonesia is the largest archipelagic country in the world it consists of more than 17.000 island with about 81.000 Km long of coast line. Very rich of natural resources and beauty for the prosperity of its people. But, with its tropical climate, make the marine and coastal Environment of Indonesia is very vulnerable to oil pollution. Therefore the Government of Indonesia takes very serious attention to the protection of marine environment.

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The massive oil spill incident involving the MT. SHOWA MARU on January 6, 1975 in the Strait of Singapore stimulated awareness of the necessity to have a comprehensive preparedness plan to face such incident.

The plan should include on oil pollution contingency plan, marine oil pollution control legislation and base line data of coastal environment necessary or estimation of a compensation claim. The absence of this preparedness caused difficulties to the Government of Indonesia during the MT. SHOWA MARU incident and the process of its claims.

Directorate General of Sea Communication who is responsible for sea communication affairs which includes maritime safety and marine environment protection together with all related agencies, took measures for the establishing of oil spill response capability.

The risk and transboundary nature of oil pollution it self makes cooperation's at regional and global levels necessary. The International Maritime Organization (IMO), the United Nations Development Program (UNDP) and donor countries are putting a lot of efforts in this direction.

II. METHOD AND MANAGEMENT OF OIL SPILL RESPONSE IN INDONESIA

a. Method

Based on the principles that the polluter is responsible for pollution incidents, that pollution could exceed the polluter's response capability, that rapidness and appropriateness of action are the main factors in ensuring a successful response, that marine pollution is regardless of a country's boundaries, the government of Indonesia adopted tiered area capability, starting from local areas up to a national level thereby, enabling a more appropriate and effective oil spill response.

Based on the prevailing risks, at the beginning stage the government of Indonesia established Standard Operation Procedure for Combating Oil Spill at the Malacca and Singapore Straits. The main route of loaded tankers from the Persian Gulf to the North Pacific Coast is through the Malacca and Singapore Straits, the alternative route of the loaded tankers (those who have less than 3.5 meter under keel clearance for passing the Malacca and Singapore Straits), is through the Lombok and Makassar Straits.

b. Management

- Presently Indonesia has several legal instruments related to preventing and responding to oil spill at sea.

There are as follows :

- 1) Act No. 1/1973 - Continental shelf of Indonesia This Act contains provisions for prevention and combating pollution from exploration and

exploitation as well as scientific research in the continental shelf of Indonesia.

- 2) Act No. 23/1997 - Basic Provisions for the Management of the Living Environment. This Act is the key umbrella legislation for environmental protection, providing the legislative framework for marine pollution matters.
- 3) Act No. 5/1983 Exclusive Economic Zone (EEZ) of Indonesia. This Act contains provision for prevention and combating marine environment pollution from any activities the EEZ of Indonesia.
- 4) Act No. 17/1985 - Ratification of United Nations Convention of the Law of the Sea (UNCLOS) 1982. Part XII of this convention deals with protection and preservation of the marine environment. It contains provisions on contingency plans against pollution, global and regional cooperation and technical assistance.
- 5) President Decree No. 46/1986 - Ratification of International Convention on Marine Pollution Prevention from ships 1973 and Protocol 1978 (MARPOL 73/78), Annex I (Oil) and Annex II (Noxious Liquefied Substance). This convention contains provisions on marine pollution prevention from ships.
- 6) President Decree No. 18/1978 - Ratification of International Convention on Civil Liability for Oil Pollution Damage 1969. This convention is a uniform international rule procedure for determining questions of liability and providing adequate compensation for damage caused by pollution from the escape or discharge of oil from ships.

There are two IMO convention related to oil spill response still in process of ratification. They are The International Convention Relating to Intervention on the High Seas in Cases of Oil Pollution Casualties (Intervention) 1969 and the International Convention on Oil Pollution Preparedness, Response and Cooperation (OPRC) 1990.

A regional seminar and workshop related to OPRC convention which was the first of its kind held in Jakarta in 1991, sponsored by IMO and IPIECA (International Petroleum Industry Environmental Conservation Association) and hosted cooperatively by Directorate General of Sea Communication and Pertamina (The National Oil Company) successfully enhanced the awareness of the necessity to have cooperative efforts between government and oil industry, and regional and international cooperation to develop oil spill response capabilities.

The enactment and ratification of the above acts and conventions give stronger legal bases in the protection of marine environment and smoother process of claims as well as commitments to formulate a National Contingency Plan.

- National Oil Spill Contingency Plan

On June 12, 1981 the government of Indonesia established two oil spill response plans covering the oil tanker routes passing through Indonesian waters from Persian Gulf to Japan and other countries in the North Pacific. One of them for the Straits of Lombok and Makasar, and the other for the Straits of Malacca and Singapore.

Both of the plans are similar in that the Directorate General of Sea Communication has the responsibility of coordination, and Pertamina has the role of oil spill equipment operator.

Each Pertamina oil facility has their own oil spill response plan. Pertamina is a member of ASCOPE (ASEAN Council on Petroleum). The ASCOPE Declaration was signed in Jakarta in 1975. ASCOPE plan for the Control and Mitigation of Marine Pollution (APCMMP) was adopted in 1980. By 1986 the ASCOPE and ASEAN Governments Plans were unified in the context of regional oil spill contingency.

The government of Indonesia has two sub-region plans with neighboring states. One plan is called Tripartite Plan with Malaysia and Singapore covering the Straits of Malacca and Singapore, and the other called the Sulawesi Sea Network covering the Makassar and Lombok Strait with Malaysia and the Philippines which was established with support from the IMO.

For the Malacca and Singapore Straits there is a "Revolving Fund" provided by the Malacca Straits Council of Japan and for Sulawesi Sea there is a set of equipment provided by IMO.

The ASEAN Oil Spill Response Action Plan was drafted initially with the support and assistance from IMO, UNEP and UNDP. With the support from the government of Japan and Coordinated by IMO, the plan is officially adopted after its Memorandum of Understanding was signed in 1993.

- Drafting of the National Oil Spill Contingency Plan

The drafting of the National Oil Spill Contingency Plan was coordinated by the Office of the State Minister for Environment

The Working Group members consisted of officials from related government agencies. They were, Department of Communications, Directorate General of Sea Communication, Environment Impact Management Agency, Department of Defense and Security, Directorate General of Oil and Gas, Directorate General of Fishery, Directorate General of Forestry, Center Research and Development of Oceanology, Office of the State Secretary.

Officials from Pertamina were also included in the working group. The Working Group was also supported by National expert on the law of the sea and the law of marine environment, and experts from Canada attached to the Office of the State Minister for Environment. The IMO manual on Oil Spill Contingency Plan and National Oil Spill Contingency Plans of other countries were used as references by the Working Group. Besides that, the draft was discussed and evaluated in seminars and workshop attended by field officials of related government agencies and oil companies prior to its submission to the Office of State Secretary for signing by the President as a Presidential Decree.

The draft is not detailed but it covers sufficiently the main requirements of a National Contingency Plan. Based on this plan and after its signing by the President, more detailed plans shall be established to provide detailed instructions.

- The Organization

The lead agency for the plan is the Directorate General of Sea Communication. The agency has one of its objectives similar to that of the IMO 'Safer Shipping and Cleaner Oceans'

The Environment Impact Management Agency is responsible for the assessment of natural damages and socio-economic losses and rehabilitation. Other agencies have support roles in operation and advisory.

The National Operation Center for Combating Oil Pollution (NOCOP) is located at Jalan Merdeka Timur No.5 It Consists of Operation Room, Crises Center Room and Communication Room It operates 24 hours daily.

The Nocop, headed by Director General of Sea Communication, reports directly to the Minister of Communications and the Head of Environment Impact Management Agency, and is the contact point for international cooperation for Oil Spill Response

The line of command from the NOCOP to the sites of incidents goes through Region Offices of Department of Communications.

According to the plan, at each level of the lead agency (Central, Region and Port) shall establish Joint Standard Operation Procedure (JSOP) with each of the supporting agencies to ensure quick response to oil spill incidents. The JSOP is believed to be the key for a successful coordinated operation.

- Communication

Directorate General of Sea Communication has a Command, Control, Communication and Information (C3I) System for Guard and Rescue operations established in 1992. The communication system of the National Oil Spill Contingency Plan is integrated with the Communication System of the Guard an Rescue Communication System.

The Guard and Rescue Command and Control System consists of Central Command Post as well as the NOCOP, 9 Region Command Posts, 3 Sub Region Command Posts located at strategic location covering the whole of Indonesian water.

Those Command Posts are able to communicate directly with ships at sea. The dedicated telecommunication network also has links to the Rescue Coordinating Centers and Sub Centers of the National SAR Agency. At Jakarta, it also has dedicated lines to the Head Office of Meteorology and Geophysics Agency.

At NOCOP there is also a data communication terminal provided by Japan within the frame work of ASEAN OSPAR (Oil Spill Preparedness and Response) reporting for Southeast Asia Region.

- Equipment

Most of the oil spill equipment in Indonesia belongs to Pertamina and its production sharing companies, located at each of their marine oil facilities.

The Directorate General of Sea Communication has one set of equipment, consisting of booms and a skimmer for training purpose and for real incidents.

The Government of Japan within the frame work of their OSPAR (Oil Spill Preparedness and Response) Project provided oil spill equipment for stock piling at Balikpapan (Straits of Makassar).

- Training

Training of personnel conducted regularly at the Guard and Rescue Fleet Base of Directorate General of Sea Communication (DGSC). Some of Guard and Rescue officers attended training course and seminar abroad. DGSC also conducted training through the JICA technical assistance where the JICA experts dispatch to Indonesia.

Pertamina conducted training for its own personnel and also attended training course and seminar abroad.

- Application of the plans.

Although the status of the National Oil Spill Contingency Plan is still in draft form, its concept has been applied for regular exercises, including exercises with neighboring states.

The benefits of the periodic exercises at all levels conducted have been very much help to Indonesia when Indonesia has to coordinate oil spill incident in the northern part of Malacca Strait. During the incident, the national plan was activated.

The National Coordination was conducted from the NOCOP using the command, control, communication and information system of the Command and Control Post for Maritime Safety Guard and Rescue System..

The Port Administrator of Belawan was appointed as On Scene Commander (OSC). He coordinated all the related agencies in the area, alerted them, asked them to stand by and some were sent to the scene. The Indonesian Navy sent aircraft and surface crafts, the Police and Custom sent surface crafts and Pertamina sent surface crafts and some of their oil pollution equipment.

The OSC also coordinated the salvage ships from Singapore who rendered assistance during the incident and later towed them for repair.

The NOCOP coordinated the related agencies at the national and international levels. The national level includes the Navy, Police, Custom and the State owned oil company (Pertamina). The Environment Impact Management Agency with some other experts supported the NOCOP during the incidents.

At the international level, coordination was conducted with the Directorate General of Environment of Malaysia, the Owners of the ship and the salvage company.

III. TECHNICAL AND FINANCIAL ASSISTANCE

The natural condition of the Strait of Malacca as a narrow and shallow strait, combined with other aspects, including human errors and sub standard ships were the background of the frequent ship accidents in the strait.

A lot of preventive measure for minimizing the number of navigational incidents in the strait.

Among others are as follows :

- a. Addition of aids to navigation
- b. Application of traffic separation scheme (TSS)
- c. Application of minimum 3.5 m under keel clearance (UKC) for ships passing through the straits.
- d. Application of the mandatory ship reporting systems at Straits of Malacca and Singapore

Although such measures have been taken, the number of navigational incidents presently are still high due to the increasing number of ships passing through the strait. There fore, the littoral states are still discussing further efforts for improving the safety of navigation and the protection marine environment in the strait.

Japan, as owner of most tankers using the strait of Malacca, provided the littoral states with a fund called the revolving fund. It was provided in 1981 by the Malacca Strait Council for and on behalf of the Japanese, non-governmental association to combat oil pollution from ships in the Strait of Malacca and Singapore. It covers the direct operation cost of the combating operation and it could be reclaimed after the polluter paid the damage. Beside this it's very helpful to support the mobilization of oil spill equipment and facilities, it's also very helpful to enhance the skill of personnel because the bank interest of the fund could be used for joint exercises by the littoral states.

In the development of oil spill response capability in the strait of Malacca and in the ASEAN Region, the littoral states as well as ASEAN member countries received technical assistance from the IMO, UNEP, UNDP and donor countries, either through the said UN bodies or directly.

IMO provided oil pollution equipment for oil spill and exercise and stored at Davao Philippines, in the context of Sulawesi Sea Oil Spill Response Network Plan. The Marine Incident Reporting System (MIRSAR) hardware and software for ASEAN Region, including its training were also provided by the IMO to the Lead Agencies of the ASEAN OSRAP. .

IV. CONCLUSION

1. A lot was accomplished after the experience of the several oil spill incident, although more has to be done to reach a reliable response capability for major oil spill incidents
2. The availability of the dedicated command and control communication system combined with the benefit of regular exercises have improved the response capability both nationally and sub - regionally during the handling of the oil spill incidents in the Strait of Malacca.
3. Oil spill equipment stock - piles are needed at locations near to the high risk areas with reliable mobilization capabilities.

NATIONAL OIL SPILL CONTINGENCY PLANNING ORGANIZATION STRUCTURE

