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Indonesia Response Strategy to Oil Spill Disaster

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Ladies and Gentlemen,

In my presentation today, I will review Indonesia as the largest archipelago country in the world and also as the most complicated Supply and Distribution system of crude oil and oil products compared to all other countries in the world. The transportation model of crude oil and oil products in Indonesia is done mostly on waters by either national oil barge from 1,000 tons up to 85,000 tons or by international tanker VLCC(Very large Cargo Carrier) over 200.000 tons passing or discharging oil or oil products. We can figure that Indonesian water is not only crowded by those barges and tankers but Indonesia water also has high risk of oil spill disaster. Indonesia is aware this high risk of water pollution if oil spill disaster occurs, therefore Indonesia has prepared some kinds of efforts and developments to prevent oil spill disaster in the water.

Indonesia's equipment is currently available either from local resources or from foreign countries aids, such as from PAJ and OSPAR Japan, Netherlands, Norway and some other countries. Indonesia is very concerned in oil spill disaster so-that Indonesia has been doing all efforts and development to protect all islands and water from oil spill disaster. Rules and Regulations regarding environment and oil spill have been issued and now Indonesian has NCP (National Contingency Plan), our NCP was signed by our President on December 29 2006.

Indonesia consists of over 17,000 islands, 81.000 km of coastal lines endowed with a population of over 240 million people, 300 different dialects. You can imagine that if you fly from Sabang (the leftmost part of Indonesia) to Marauke (the rightmost part of Indonesia) it will take six hours and it is almost the same as you fly from New York to Los Angeles. Indonesia is a developing country, 85% of Indonesia area is water and Indonesia has rich and valuable marine ecosystems, any damage to Indonesia marine ecosystem will not be only the concern of Indonesia, but will also be a global concern. Some beautiful places like Bali and Bunaken in Sulawesi must be protected from oil spill disaster as I am sure if these places are contaminated with oil spill then it will be also the world's concern.

Indonesia is the largest archipelago country, the supply and distribution system of crude oil and oil products is very complicated and it is the most complicated in the world! Indonesia has 5 STS (Ship to Ship Transfer) and 10 Single Buoy Mooring (SBM). Large tankers come to these STS unloading oil products, then oil products are transferred to medium or small tankers and they go passing through out Indonesia water to all Oil Depots or Oil Terminals. Large tankers discharge oil products to these SBM and then oil products go to Oil Terminal or Oil Depots by submersible pipe or submersible hoses and these submersible hoses and pipe have high risk of polluting Indonesia water. It is absolutely true that all these STS or SBM are classified as high risk to Oil spill disaster. Some of the major oil distribution points are: two in the Sumatra Area, two in Java, two near Kalimantan and Sulawesi and one in Irian Jaya. There are more than 82 exploration activities operating onshore and offshore with over 2000 kilometres of submersible pipelines and hoses and an addition of 3000 kilometres in the near future in Natuna. There are over 150 oil jetties which are used for oil related activities and many of them are considered as high risk, among them are 6 major processing plants and 4 major big Transit Terminals. If we see how crowded the oil activities in Indonesia and how many oil terminals and oil depots Indonesia has , people say, IF YOU DROP A STONE FROM A PLANE FLYING OVER INDONESIA, THIS STONE WILL FALL TO THE ONE OF THESE OIL DEPOTS OR TERMINALS.

Our efforts, implementation and coordination carried out at present have reached better improvement and enhancement either in system or in strategy.
The sources of the oil spill equipment in Indonesia are from the followings:

1. Directorate General For Sea and Transportation
2. BPMIGAS(The Government Executive Agency for Upstream Oil and Natural Business Activities).
3. Indonesian National Oil Companies (PT PERTAMINA PERSERO)
4. Foreign countries such as from Japan, Norway, Netherlands and other countries. Japan is well-known among Indonesian for the projects called OSPAR in Balikpapan and PAJ in Jakarta.
5. Private companies such as PT Indonesian Power, PT Paiton Energy, PT Polytama and many other private companies.

As I give my speech in Japan, I like to let you know about OSPAR Equipment in Indonesia. OSPAR equipment which donated to Indonesia from the Japan Ministry of Transportation, it was given to Ministry of Transportation of Indonesia in November 1993. Directorate General For Sea and Transportation is the Department to be appointed to use this OSPAR equipment. Due to the limitation of budget, Directorate General For Sea and Transportation delivered the equipment to Pertamina Balikpapan, East Kalimantan on 21 November 1994. Pertamina Balikpapan East Kalimantan has never budgeted the maintenance for this OSPAR equipment. The present condition of this OSPAR equipment is now partly damaged as no maintenance budget is located for this equipment.

Indonesia is absolutely very concerned to oil spill disaster, as I mentioned before that there are many oil related activities. Therefore Indonesian government has issued over 30 Rules and Regulations regarding Environment and Marine Oil Spill through multiple government bodies from 1969 to 2006. Some of the local Rules and Regulations mentioned are as follows:

1. Government Regulation No. 19 of 1973 about Regulation and Supervision of Work Safety in Mining. This regulation binds the contractor or the supervisor of an operation to prevent damage to the environment specifically to the sea habitat.
2. Government Regulation No. 17 of 1974 about Supervision and Implementation of off-shore Oil and Natural Gas Exploration and Exploitation. This prevents the contractor / user to damage the environment with the crude oil or any type of processed oil, toxic materials and any hazardous materials. The contractor / owner are obliged to clean up the environment should any damage occur because of it.
3. Joint Decision of the Director General For Sea Transportation and the Director General of Oil and Natural Gas No DKP 49/1/1 of 1981 about the standard Procedure for Prevention and Combating Marine Pollution in Strait of Makassar and Lombok and Gas No DKP 49/1/2 of 1981 about the Standard Procedure for Prevention and Combating Marine Pollution in Strait of Malacca and Singapore.
4. The Minister of Communication Decree No KM 86 of 1990 about Prevention of Pollution by oil from ships.
5. Regulation Number 21/1992, it is about shipping. License to develop and operate special harbour, bunker or oil jetties can be issued after fulfilling the terms of harbour technical, shipping safety and environmental conservation.
6. Act no 23 of 1997 concerning Environmental Management. This binds the user to manage and ensure that the environment doesn't get damaged from any harmful elements
7. Government Regulation No. 82 of 2001 about the management and quality control of water and all water above the earth's surface such as rivers: rivers, lakes, swamps, and any water sources. This binds the contractor / user to pay for damages (Polluter Pays Principle).
8. Ministry of Communication decree No. KM 4 of 2005 about pollution from ships. This binds the owner or operator to be responsible should pollution occurs from the ship and they must have the necessary oil spill equipments such as dispersant and oil boom
9. **NATIONAL CONTIGENCY PLAN(NCP) 2006,** President Decision No 109 year 2006 regarding Emergency Response in Combating Oil Spill on Sea.
10. And many more decrees and regulations about sea, pollution control, waste control, ship regulation, oil spill regulations and etc

While reference for the regional agreement, Indonesia has also signed one of the followings:

1. The Memory of Understanding about ASEAN Oil Spill Response Action Plan (OSRAP) dated 24th January 1994.
2. The ASCOPE Council Agreement about the ASCOPE Plan for Controlling and Mitigation of Marine Pollution (APCMMP)

If we see the classification of oil spill equipments, they're divided as follows:

1. Directorate General For Sea and Transportation for Tier 3
2. BPMIGAS (Government Executive Agency for Upstream Oil and Natural Gas Business Activities) for Tier 1 and Tier 2 and supporting Indonesian Government for Tier 3
3. Indonesian National Oil Companies (PT PERTAMINA PERSERO) mostly for Tier 1 and supporting Tier 2 and Tier 3.
4. Foreign countries such as from Japan, Norway, Netherlands and other countries for supporting Tier 2 and 3.
5. Private companies such as PT Indonesian Power, PT Paiton Energy, PT Polytama and many other private companies for Tier 1.

As BPMIGAS can support for Tier 3 in case there is oil spill disaster, so I like to talk little about what BPMIGAS has done in preventing and combating oil spill in Indonesia. As location is a key factor to combat oil spill disaster, remote and huge areas with very limited access and poor infrastructures in Indonesia are major problems to combat oil spill, therefore BPMIGAS has divided Indonesia areas to be 7 regions. Those regions are as follows:

1. North Sumatra and Nanggro Aceh Darussalam
2. Riau
3. Sea of Natuna
4. West Java
5. Central Java and East Java and Bali
6. East Kalimantan and Strait of Makassar
7. Sulawesi, Maluku and Papua.

If you see total numbers of equipment are available now in Indonesia and if you learn the Coordination Map by BPMIGAS, then we can conclude that Indonesia **does not need to establish Oil Spill Centre as each Region is actually a big Oil Spill Centre.** There is a guideline issued by BPMIGAS that all the equipment in each region must be inter-connectable and interchangeable. If oil spill occurs in one of these regions, this region must be ready for Tier 1 and Tier 2. This Region is also ready to support the Indonesian Government as the equipment in each Region is sufficient to deal with Tier 3.

If we see the preparedness of Pertamina National Oil Companies, Pertamina has about almost 100,000 meters of onshore solid floatation boom and this boom can protect long beach of Indonesia as most of this solid floatation boom is recommended to use the same connector. We are aware that we must avoid oil coming to the beach if there is oil spill, if oil comes to beach and penetrates into sands; it will be a disaster to clean the beach as oil in appropriate concentration is a toxic substance. Normally toxic effects in hydrocarbons will probably persist in coastal habitats for at least 20 years.

To evaluate the preparedness of BPMIGAS in Area VI, East Kalimantan and Strait of Makassar, we can see the preparedness of the equipment below:

Area VI Equipment

Company	*Oil Boom for opensea*	*Oilskimmer capacity*
CHEVRON INDONESIA CO	800 metres	5x100 tons/hour
TOTAL E&P INDONESIE	1900 meters	3x100tons/hour 2x100 tons/hour
VIRGINIA OIL COMPANY	0	1x100 tons/hour
PT PERTAMINA PERSERO BALIKPAPAN	400 metres	2x100tons/hour
OSPAR	1750 meters	2x200 tons/hour
TOTAL EQUIPMENT	4850 meters	1700 tons/hour

Indonesia has also experiences in some major oil spill either on land or on water and Indonesia has shown the capability to handle this oil spill disaster.

1. April 2000, Cilacap, Central Java, The MT King Fisher ripped, spilling over 4000 barrels of oil.
2. July 2003, Palembang: PLTU-I/PLN carrying 363 kiloliters of IDF crashed with the cargo ship An Giang causing the Musi River in to be contaminated.
3. March 2004, Babelan, West Java, blowout on land, over 15 tons/hour of oil spill.
4. July, 2004, Riau West Sumatera, tanker Vista Marine sank because of bad weather and spilled over 200 tons of oil.
5. March 2004, Babelan, West Java, blowout on land, 15 tons/hour of oil spill.
6. October 2004, East Java, Pertamina Balongan East Java causing disaster of marine life and fish farm.
7. July 2005, Prabumulih, South Sumatera, blowout on land, over 10 tons/hour of oil spill.

Herewith I like to conclude as follows:

1. Oil spill prevention and emergency response in Indonesia is our firmed commitment to prevent oil spill disaster which can damage our beautiful beaches, to harm marine life and property on water.
2. Cooperation to prevent and to combat oil spill among Indonesia and the partners should be developed especially with Japan and we understand the Japan is very concerned for the development of Indonesia strategy and preparedness to response Oil Spill Disaster.
3. The joint exercise, training and other programs in oil spill among Indonesia and other countries based on Mutual Corporation such as MARPOLEX must be regularly and professionally executed.
4. Japan is the biggest donation for Oil Spill Equipment in Indonesia and Japan has also paid great attention for the development of Oil Spill Response in Indonesia, therefore through this very valuable occasion, on behalf of Indonesian people, I would like to say ARIGATO GOZAIMASU to all of you. THANK YOU!