PIMMAG OSR EQUIPMENT OPERATOR TRAINING

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By :

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(PIMMAG)

1. BACKGROUND

1.1 Petroleum Industry of Malaysia (PIMMAG) was established under the companies act in December 1993 as a non profit making company. It's operation is fully funded by the members through subscriptions based on oil spill exposure volume.

1.2 ROLE

PIMMAG's principal role is to enhance the protection of the environment through the provision of pooled resources in order to respond to oil spill contingencies arising in Malaysia and Malaysian waters including the economic exclusive zone.

1.3 KEY OBJECTIVES

1.3.1 Support member's response to oil spills.

- Provide oil spill equipment for Tier 2 response.
- Provide skill manpower to support equipment use.

1.3.2 Provide OSR training to members and relevant parties.

1.3.3 Integrate PIMMAG's OSR efforts with that of government.

1.3.4 Represent petroleum industry with respect to OSR matters.

1.3.5 Promote awareness and interest in all OSR matters.

1.4 MEMBERSHIP

The membership is open to companies/agencies that deals with oil and oil related business with exposure to oil pollution. Current membership includes:

PETRONAS	CALTEX
ESSO	MOBIL
SHELL	CABOT M'sia Sdn Bhd
BP	LUNDIN M'SIA Sdn Bhd

1.5 ORGANISATION

1.5.1 PIMMAG is managed by Board of Directors with nominees from members.

1.5.2 It has a lean administrative staff headed by a Manager and supported by Head of Operations and Training and Head of Administration and Finance. (ANNEX 1)

1.5.3 The operation and maintenance of the oil spill equipment are carried out by the service contractor.

1.5.4 PIMMAG maintained three manned stockpile bases at Port Dickson, Kemaman and Labuan while unmanned stockpiles are situated at Miri, Kuching and Tawau in East Malaysia.

1.5.5 The total manpower is 35.

1.6 OSR CAPABILITY

1.6.1 PIMMAG is equipped with US$ 15 million worth of equipment having total OSR capability of 144 KB.

They are located at the following bases:

- Port Dickson 40 KB
- Kemaman 40 KB
- Labuan 40 KB
- Miri, Kuching & Tawau 8 KB each

The plan is to upgrade to 166 KB in year 2000.

1.6.2 Pooling of resources at 3 main stockpile areas:

- Straits of Malacca at Port Dickson
- East Coast Peninsular Malaysia at Kemaman
- Sabah & Sarawak at Labuan

1.6.3 PIMMAG respond within 12 – 24 hours from each stockpile

1.6.4 50% mobilization of resources from other stockpiles within 24 – 48 hours

1.7 ORS EQUIPMENT CAPACITY

The OSR equipment capacity is as per ANNEX 2.

2. TRAINING PROGRAMMES

As mentioned above, training is one of the key objectives of PIMMAG to ensure that members' staff is provided with skill and knowledge that ensure their effectiveness in oil spill response. Regular training programmes for different levels of personnel have been carried out successfully for the past five years.

The training programmes carried out includes:

1. OSR Familiarization Course
2. OSR Equipment Operator Course
3. OSR Management Course
4. OSR Seminar & Conference
5. OSR Exercises

3. OSR EQUIPMENT OPERATOR TRAINING

The OSR Equipment Operator Training is one of the key programme run by PIMMAG. The course is currently organized four to five times a year at Port Dickson, Labuan and Kemaman. About 25 – 30 participants from member companies and government authorities attended the course each time it was held. So far more than 500 personnel have attended the course. The list of personnel and their data is being kept by PIMMAG for reference and as database of skill personnel in OSR should they need to be called during an emergency.

The objective of the course is to ensure that participants acquire the knowledge on the various aspects of oil spill response operations and techniques so as to be an effective member of the oil spill response team. The will be exposed to the theory of oil spill, operations and deployment of OSR equipment.

The scope and coverage of these courses are in line with the IMO level 1, 2 and 3 syllabus which includes:

Introduction to oil spill
Fate of oil spills & its impact
Containment and recovery
Use of dispersant
Shoreline cleanup
Handling of media
OSR planning & operations
National contingency plans
Practical demonstration and operations of OSR equipment
OSR exercise and deployment of equipment

3.1 FACILITIES AND TRAINERS

These Courses are conducted using PIMMAG facilities and equipment at the various bases i.e. Port Dickson, Labuan and Kemaman. It provides the opportunity for participants to be exposed to the actual PIMMAG equipment stockpile and interaction with PIMMAG staff at the various bases.

The trainers involved in these courses include, PIMMAG Manager, Head of Operations, Base Managers and Supervisors. The involvement of the key staff has contributed to the success of these courses where participants are trained by qualified and experienced trainers. Experts from the media and government agencies are called to talk on their relevant topics.

3.2 COURSE EVALUATIONS AND IMPROVEMENTS

The effectiveness of the course is being evaluated by using feedback from the participants, members' advisory committee and PIMMAG course review team. Feedbacks and suggestions from the above parties are studied and implemented where required. PIMMAG also carry out bench marking on similar courses conducted by other established organisations.

4. LESSONS LEARNT

4.1 Participants are provided with general knowledge on oil spill, including it's impact, response and cleanup procedures and organisation to ensure their effectiveness as members of the OSR team.

4.2 Each participants are exposed to the practical operations and deployment of equipment including their limitations and capabilities.

4.3 Participants are split into small groups to experience the teamwork effort that contribute towards the success of the total exercise.

4.4 Regular announced and unannounced exercises are conducted by member companies to ensure personnel competency and enhancement of their skill.

4.5 Refresher course are held every 2 to 3 years to update members on new techniques, equipment and refresh members on latest developments in OSR technology.

4.6 The OSR equipment operators to be developed into OSR supervisors and managers through relevant training programmes.

5. FUTURE OUTLOOK

The importance of training cannot be further emphasized as without skilled personnel the organisation will crumble due to ineffectiveness and inefficiency. As such training will remain as one of the most essential activity for a prudent and responsible institution.

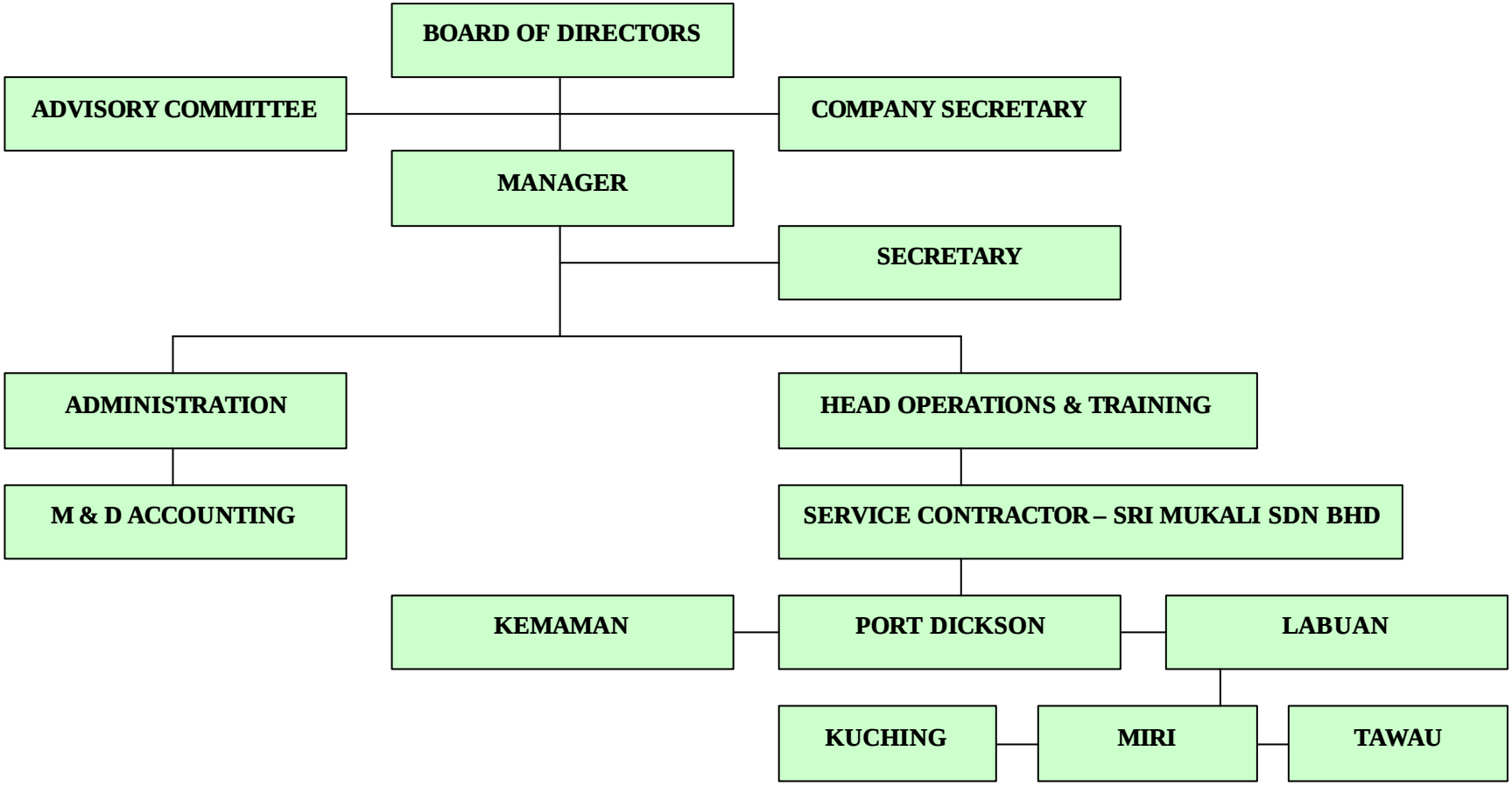
The OSR equipment operator and management courses remain as one of the most important program to ensure that plans and strategies developed by the Management Team can be carried out smoothly and successfully.

PIMMAG OSR EQUIPMENT OPERATOR TRAINING

PIMMAG will continue it's effort in developing OSR equipment operators and management courses by conducting at least five sessions a year for 150 participants from member companies. Sharing of lesson learnt from various similar organisations world wide will ensures the effectiveness of training and advancement in OSR technological development.

ANNEX 1

PIMMAG ORGANISATION CHART



ANNEX 2

PIMMAG EQUIPMENT STOCKPILE RECOVERY RATE (JANUARY 1999)

EQUIPMENT	UNIT	RECOVERY RATE (Ton/hr)	EFFICIENCY %	TOTAL	
				(Tonnes)	(Barrels)
PORT DICKSON					
Marflex Arm	1	450	20	2,520	17,640
T-12 Skimmer	1	12	90	302.4	2,116.8
Delta Head	4	8	50	448	3,136
Powervac	3	12.54	50	526.7	3,687
C-24 Skimmer	2	24	90	1,209.6	8,467.2
			Sub Total	5,006.7	35,047
Dispersant (Drums)	259	Ratio 20 : 1		1,082.6	7,578.3
			TOTAL	6,089.3	42,625.3
KEMAMAN SUPPLY BASE					
Marflex Arm	1	450	20	2,520	17,640
T-18 Skimmer	1	18	90	453.6	3,175.2
Manta Ray	2	8	50	224	1,568
Powervac	2	12.54	50	351	2,457
Foilex TDS 200	1	65	37	673.4	4,713.8
			Sub Total	4,220.0	29,554.0
Dispersant (Drums)	474	Ratio 20 : 1		1,980	13,869
			TOTAL	6,203.0	43,423.0
LABUAN SUPPLY BASE					
Foilex TDS 200	3	65	37	2,020.2	14,141.4
T-12 Skimmer	2	12	90	604.8	4,233.6
Vikoskim	1	100	37	1,036	7,252
Vacuum Pump	3	2	50	84	588
			Sub Total	3,745.0	26,215.0
Dispersant (Drums)	490	Ratio 20 : 1		2,065	13,455
			TOTAL	5,810.0	39,670.0

ANNEX 2

EQUIPMENT	UNIT	RECOVERY RATE (Ton/hr)	EFFICIENCY %	TOTAL	
				(Tonnes)	(Barrels)
MIRI SUPPLY BASE					
Foilex TDS 200	1	65	37	673.4	4,713.8
T-18	1	18	90	453.6	3,175.2
Dispersant (Drums)	20	Ratio 20 : 1		83.6	585.2
			TOTAL	1,210.6	8,474.2
KUCHING SUPPLY BASE					
Foilex TDS 200	1	65	37	673.4	4,713.8
T-18	1	18	90	453.6	3,175.2
Dispersant (Drums)	20	Ratio 20 : 1		83.6	585.2
			TOTAL	1,210.6	8,474.2
TAWAU SUPPLY BASE					
Foilex TDS 200	1	65		673.4	4,713.8
Dispersant (Drums)	100	Ratio 20 : 1		418	2,926
			TOTAL	1,091.4	7,639.8

GRAND TOTAL: With 2 Marflex Arm is about 144 kbbls, without Marflex Arm is about 109 kbbls.

Note:

a) **Operational time is 28 hours (8 hrs first day, 10 hrs each for next 2 days)**
b) **1 tonne is equivalent to 7 bbls**
c) **1 drum of chemical = 209 litres (0.209 tonnes)**
d) **Capacity based on equipment recovery alone e.g. all chemicals in stockpile can be applied to oil slick.**