



REPORT ON THE OSMAG-KPA-TKP MARINE OIL SPILL EMERGENCY RESPONSE TRAINING & TIER II DRILL CONDUCTED IN NOV 2018

Tuesday 20th – Friday 23rd November 2018

**Prepared by: Francis SAHA
Environment Manager**

OSMAG/KPA/TKP MARINE EMERGENCY RESPONSE TRAINING & TIER II DRILL – 20TH – 23RD NOV 2018

i.) Table Of Contents

S/No	Description	Slide No
1	Abbreviations	3 - 4
2	Summary	5 - 6
3	Acknowledgement	7
4	Objectives	8
5	Classroom training (days 1 & 2)	9
6	Classroom training feedback	10 - 11
7	Practical equipment handling (day 3)	12
8	Drill Scenario (day 4)	13 - 17
9	Location of incident scene (within Port of Mombasa)	18
10	Chronology of events (Before Activation)	19
11	Chronology of events (After Activation)	20 - 25
12	Key drill highlights	26
13	Observations & Action plan	27 - 29
14	Conclusion	3 - 4

OSMAG/KPA/TKP MARINE EMERGENCY RESPONSE TRAINING & TIER II DRILL – 20TH – 23RD NOV 2018

i.) Table Of Contents

S/No	Description	Slide No
15	Photos – days 1 & 2	31 - 34
16	Photos – day 3	35 - 38
17	Photos – day 4	39 - 42

OSMAG/KPA/TKP MARINE EMERGENCY RESPONSE TRAINING & TIER II DRILL – 20TH – 23RD NOV 2018

ii.) Abbreviations

Description	
OSMAG	Oil Spill Mutual Aid Group
OSRAT	Oil Spill Response & Action Team
IAP	Incident Action Plan
NOSCP	National Oil Spill Contingency plan
OSCP	Oil Spill Contingency Plan
PPCO	Principal Pollution Control Officer
MPCC	Marine Pollution Control Centre
ICC	Incident Command Centre
KMA	Kenya Maritime Authority
NEMA	National Environment Management Authority
KEMFRI	Kenya Marine Fisheries Research Institute
ERC	Energy Regulatory Commission
KPA	Kenya Ports Authority
TKL	Total Kenya Limited

OSMAG/KPA/TKP MARINE EMERGENCY RESPONSE TRAINING & TIER II DRILL – 20TH – 23RD NOV 2018

ii.) Abbreviations

Description	Description
OSRL	Oil Spill Response Limited
MJT	Mombasa Joint Terminal
LOBP	Lube Oil Blending Plant
KOT	Kipevu Oil Terminal
SOT	Shimanzi Oil Terminal
OSC	On Scene Commander
LPG	Liquefied Petroleum Gas
OSMAG TC	OSMAG Technical Coordinator
OSMAG TA	OSMAG Technical Assistant
HFO	Heavy Fuel Oil
HSEQ	Health Safety Environment & Quality

2. SUMMARY

- The Marine Oil Spill Emergency Response (MOSER) training and Tier 2 drill was organized jointly by the Kenya Ports Authority, Total Kenya PLC & The OSMAG Society.
- The schedule of events was as follows:

Tue, 20th Nov 2018	Royal Court Hotel	Classroom theoretical training
Wed, 21st Nov 2018	Royal Court Hotel	Classroom theoretical training
Thur, 22nd Nov 2018	KPA – MPCC	Equipment demonstration & Practical handling
Fri, 23rd Nov 2018	KPA – MPCC & On-water	Simulated marine Oil spill emergency drill

- There were 53 participants from various OSMAG members and stakeholder agencies during the classroom training
- The practical equipment handling session saw an attendance of 80 delegates with the on-water equipment deployment exercise registering over 110 participants.
- The equipment deployed included: different kinds of boats such as tug boats, mooring boats and pilot boats; response equipment such as containment booms, skimmers and dispersant sprayers.

2. SUMMARY (Continued...)

- The simulation drill exercise was based on a real time accident scenario involving cargo hose rupture during discharge operations at Shimanzi Oil Terminal (SOT).
- The simulation depicted an accidental discharge of an estimated 50 metric tons of HFO into the sea
- The Incident Command Centre (ICC) was set up at the KPA Marine Pollution Control Centre (MPCC).
- Total Kenya convened their Crisis Management Cell (CMC) at their head office, Regal Plaza, Nairobi in line with their emergency response procedures

3. ACKNOWLEDGEMENTS

➤ The organizers extend their sincere gratitude to the Kenya Ports Authority, TKP management, the OSMAG Technical staff, OSMAG Members, and the following agencies who participated in the drill:

- **1.) The Kenya Maritime Authority (KMA)**
- **2.) The Kenya Navy**
- **3.) The Maritime Police Unit**
- **4.) The Energy Regulatory Commission (ERC)**
- **5.) National Environmental Management Authority (NEMA)**
- **6.) St. John's Ambulance**
- **7.) Kenya Ferry Service**
- **8.) Kenya Forestry Service**
- **9. County Government of Mombasa**
- **10.) Kenya Wildlife Service**

4. OBJECTIVES

- 1) To appraise the level of emergency preparedness of OSMAG/OSRAT, KPA and the TKP Crisis Management Cell (TKP CMC) in the event of an oil spill crisis
- 2) Test the KPA Marine Pollution Control Centre (KPA MPCC) as an Incident Command Centre and assess the coordination between it and TKP CMC
- 3) Test the TKP Marine Emergency Response Plan and identify points of improvement
- 4) Test the Port of Mombasa Oil Spill Contingency and Response Plan and its application and identify points of improvement
- 5) Identify and mitigate any HSSE risks on site
- 6) To review arrangements for oil spill response among OSMAG members
- 7) Review stakeholder liaison and management during a real spill crisis

5. CLASSROOM TRAINING (DAYS 1 & 2)

- There were 53 participants from various organizations and stakeholder agencies. The attendance rate was 76% (53 participants out of 70 expected) which was satisfactory.
- Delegates from nine different government agencies attended the training.
- From post training feedback forms filled by the participants:
 - ✓ 100% of the delegates agreed that the training met their expectations.
 - ✓ 100% of delegates agreed that the training is relevant to their work and will apply knowledge gained.
 - ✓ More than 90% of respondents agreed that:
 - The content was organized & easy to follow;
 - The trainers were knowledgeable;
 - The trainers met training objectives;
 - Adequate time was allowed for questions and discussions.
 - ✓ 100% of participants rated the training as Good or Excellent.

6. CLASSROOM TRAINING FEEDBACK

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1. The training met my expectations.	18	23			
2. The knowledge learned is relevant to my work as an emergency responder and will apply it.	30	11			
3. The content was organized and easy to follow.	23	14	3		
4. The trainers were knowledgeable.	23	15	1		
5. The trainers met the training objectives.	19	20	1		
6. Adequate time was provided for questions and discussion and class participation was encouraged.	22	16	1		
	Excellent	Good	Average	Poor	Very poor
7. How do you rate the training overall?	17	23			

6. CLASSROOM TRAINING FEEDBACK CONT'D

8. What were the positive aspects about the training?

- Very knowledgeable facilitators
- Interactive and class participation
- Real life examples
- Communication
- Causes of oil spills
- Safety awareness, Compensation and Boat operations
- Classroom Activities

9. Any other comments, suggestions, observations and recommendations?

- Time keeping especially day 1
- Time allocated per unit to be increased
- Classroom training time to be increased to 3 days
- Training to be conducted at least twice a year.
- Use of more visual aids during training.
- Source for more facilitators

7. PRACTICAL EQUIPMENT OPERATION (DAY 3)

- This was held on the 3rd day (22nd November 2018) at the KPA MPCC
- Delegates were taken round the equipment warehouse by the OSMAG Technical Team.
- During the walkabout all equipment within the warehouse were shown to the delegates while relating to the classroom session learning points.
- Quick explanations were made about how some of the strategic equipment work while responding to delegate's questions.
- Delegates were then split into three teams: Booming, Skimming & Dispersant teams.
- The three teams were each allocated a response station consisting of the representative equipment for the function.
- For each team, a team leader was assigned who demonstrated the practical aspects including: choice from alternatives, starting and stopping the equipment, proper use in a spill situation, mobilization procedures for the equipment & safety during use.
- Delegates were then allowed time to practice individually the demonstrated skills to a satisfactory completion level.
- Subsequently, teams were rotated through the stations so as to have a rounded skill level.

8. DAY 4 DRILL SCENARIO

NAME	ABBREVIATION	CALL SIGN
• Booming Team	(BT)	Bravo Tango
• Skimming Team	(ST)	Sierra Tango
• Dispersant Team	(DT)	Delta Tango
• Towing Team	(TT)	Tango Tango
• Logistics Team	(LT)	Lima Tango
• On-Scene Commander	(OS)	Oscar Sierra
• Control Tower	(CT)	Charlie Tango
• Tug Nyangumi	(TN)	Tango November
• Incident Command	(IC)	India Charlie
• Mooring Boat – KMB8	(KMB8)	Kilo Mike Bravo 8
• Marine Police Boat	(MP)	Mike Papa
• Kenya Maritime Authority	(KMA)	Kilo Mike Alpha
• K-Boat Pontoon	(KBP)	Kilo Bravo Papa.

8. DAY 4 DRILL SCENARIO (Spill at SOT)

OIL SPILL RESPONSE TRAINING OF ONSITE RESPONDERS PRACTICALS

HANDS – ON ANNOUNCED SEA DEPLOYEMENT EXERCISE

DATE: 23rd November 2018

TIME: 0900hrs to 1300hrs

VENUE: Kilindini Harbour, Mombasa

OBJECTIVES OF THE EXERCISE

- Testing:
1. Identification, inspection, preparation, operation and deployment of oil spill response equipment as will be used within the port of Mombasa.
 2. Knowledge of the Port of Mombasa Oil Spill Contingency and Response Plan and its application

PROGRAMME

0830	Safety brief and scenario presentation by OSRAT Leader
0900	Initiation of the exercise by the provision of an alert message to the On-Scene Commander (OSC) in charge of OSRAT
0930	Execution of the Exercise
1245	Recovery & Demobilization
1330	Exercise Debriefing and feedback
1500	Lunch Break and Secure

WIND

Direction: SW

Speed: 15 Knots

CURRENT

Direction: 286^o

Speed: 2.5 knots

TIDE

LW: 1012 0.2M

HW: 1622 3.1M

OIL SPILL RESPONSE TRAINING OF ONSITE RESPONDERS PRACTICALS

SCENARIO

Incident Information

TOTAL (K) and seven other Oil Marketing Companies have parcels of cargo on-board M/T KRISTEN MAERSK which has been chartered to deliver 28,500 metric tons of HFO. The tanker with Length Overall (LOA) 183.18m docked at the Port of Mombasa on 19th November 2018, four days ago at Mbaraki Wharf to discharge to Mbaraki Bulk Terminal and later shift to Shimanzi Oil Terminal (SOT) to discharge to TOTAL (K), Oilibya, GAPCO and VIVO amongst other terminals. The tanker is estimated to complete discharge cargo operations on 26th November 2018.

Days 1, 2 & 3
M/T KRISTEN MAERSK berths at Mbaraki Wharf - North ready to discharge. Port State officials and Mbaraki Bulk Terminal managers board the tanker and conducts routine arrival inspection programme.

All pre-discharge checks are carried out on-board the tanker and the receiving terminal in accordance with the recommendations of the latest, 5th edition of ISGOTT (International Safety Guide for Oil Tankers and Terminals).

The tanker safely discharges 6,500 metric tons of HFO.

Day 4
On 22nd November 2018, at about 1250hrs the tanker shifted from Mbaraki Wharf – North to SOT to discharge the 22,000 metric tons ROB. Immediately after safely securing alongside, ship-shore safety checks were conducted in line with ISGOTT prior to commencement of discharge cargo operations.

16.00 Flexible loading hoses were connected to TOTAL (K) and GAPCO terminals respectively but discharging operations not started yet awaiting instructions from the Charterer.

Day 5
On 23rd November 2018, at 0330hrs commenced discharging operations.

08.00 The discharging was proceeding along nicely, sometime into

8. DAY 4 DRILL SCENARIO (Spill at SOT)

OIL SPILL RESPONSE TRAINING OF ONSITE RESPONDERS PRACTICALS

	the operations high winds and heavy rain started. The pumps are running well, the ship's watch personnel are doing routine rounds and within sight of the ship side of the hose connections.
08.15	The loading master was barely able to stay awake due to fatigue. He last communicated with GAPCO Control Room but hadn't communicated with the Control Room at TOTAL (K) and no update on gauges either. Meanwhile the only one person attending to the jetty manifold area and hose connections on the jetty head side had taken shelter at the Port Fire Control Room due to the heavy rains.
08.30	One of the ship's watch personnel doing routine rounds and within sight of the ship side of the hose connections notices a black liquid gushing out at the jetty head. He shouts to raise the alarm. Incidentally the flexible hose discharging to TOTAL (K) has experienced complete rupture. The loading master communicates with the shore personnel at TOTAL (K) Control Room to inform them of the incident.
08.35	Fire-fighters at SOT raise the alarm and inform Port Control VTS tower of the emergency.
08.40	The Port Control VTS tower informs the Pollution Control office of the reported incident at SOT. The ship's ESD is triggered. The ship's pumps are stopped and valves closed. Equally TOTAL (K) tank farm valves are closed.
08.42	Fire-fighters at SOT informs Pollution Control Office of the emergency. The Port Control VTS tower informs RMRCC of the reported incident at KOT.
09.00	Pollution Control Office contacts the OSMAG Technical Coordinator (OSMAG-TC) to inform him of the incident.

OIL SPILL RESPONSE TRAINING OF ONSITE RESPONDERS PRACTICALS

09.30	KPA Pilot while navigating M/v MSC PORTUGAL outbound observes and reports to Port Control VTS tower presence of a smelly blackish liquid flowing from SOT towards "K".
10.00	The entire of the jetty structure is inundated with a pool of blackish liquid and the shore officers are struggling to find access to the manifold area to shut down the shore-side valves. 30 minutes later as the KPA Pilot sails past "C" anchorage he further reports that the substance matter has actually drifted past Mtongwe anchorage towards Mwenza Creek. The beach adjacent to Mtongwe anchorage is popular with locals for swimming.

Task: As part of the TOTAL (K) emergency response team, mount the initial Tier 1 response to this incident.

NOTE:

1. You have access to OSMAG equipment directory ready for immediate use.
2. You are conversant with ALL sensitivities in the harbour. Usually you list them immediately when a spill occurs.
3. You are able to get additional required resources through the Harbour Master (GMO) and OSMAG TC within One Hour to enable you respond effectively to the oil spill.

8. DAY 4 DRILL SCENARIO (Updates)

OIL SPILL RESPONSE TRAINING OF ONSITE RESPONDERS <u>PRACTICALS</u>	
UPDATE 1:	
09.00	Four staff from the KPA-Pollution Control Section arrives on site for assessment.
Task	Using your assessment team, what would be the salient features and items to look out for during the assessment and what will be the possible observations.
UPDATE 2:	
09.15	The KPA-PPCO arrives on site.
09.20	The OSMAG TC arrives on site for assessment. The two officials conduct a joint assessment. From evaluations based on the possible spilled quantities and the current level of response. A unanimous decision is made to escalate it to Tier 2 level. They start to come up with a preliminary incident action plan.
10.00	The KMA Environment officers arrive on site.
Task	Outline the initial Incident Action Plan for the next three hours taking into account the tides. (Hint: Notifications, mobilisation, organogram, strategies and tactics, resource needs, logistical issues, etc)

OIL SPILL RESPONSE TRAINING OF ONSITE RESPONDERS <u>PRACTICALS</u>	
UPDATE 3:	
10.30	The tide is slack. Estimates based on flow rates, hose size, release durations etc indicate approximately 50 tonnes of HFO has been released into the marine environment
10.35	Ship's gantry operators working cargo on ship at the conventional berth No.10 notices a black substance on the sea surface.
Task	Draw up your strategy for combating the escaped oil slick. Oil slicks have been observed as far as the Kipevu Bridge past the new SGR rail bridge.
UPDATE 4:	
10.40	The tidal stream has started changing.
Task	Draw up your new strategy for response for the next three hours taking into account the new current conditions.
UPDATE 5:	
11.00	KPA Managing Director is worried about the beach and shore at the KPA HQs-Kipevu being heavily covered with black oil, given the visit by the Republic of Mozambique President, tomorrow. He demands for immediate and quick action. Captain of the cargo vessel berth No.10 is complaining to the Port Authority about staining of his vessel and demanding for immediate clean-up and compensation.
Tasks	Based on the above complaints and other environmental, socio-economic factors draw up a list of priorities for response. TOTAL (K) has agreed to provide more responders and volunteers for the response. Prepare a safety brief.

8. DAY 4 DRILL SCENARIO (Updates)

OIL SPILL RESPONSE TRAINING OF ONSITE RESPONDERS PRACTICALS

UPDATE 6:

11.15	Following change of the tidal stream the shoreline adjacent former Westmont has been impacted heavily with HFO fumes. The on-site responders have observed smoke and suspect possible fire near the pipelines from SOT and are requesting immediate response by Port Fire Services.
--------------	--

Tasks	The entire area is under fire risk due to surface pipelines. Seek assistance from the Incident Command Centre.
--------------	---

UPDATE 7:

12.30	A situation meeting has been convened by the KMA and is to include the relevant Government agencies. The agenda of the meeting is to review the current status and planned operations and possible areas of intervention.
--------------	--

Task	Draw up briefing report to this meeting.
-------------	--

END OF EXERCISE

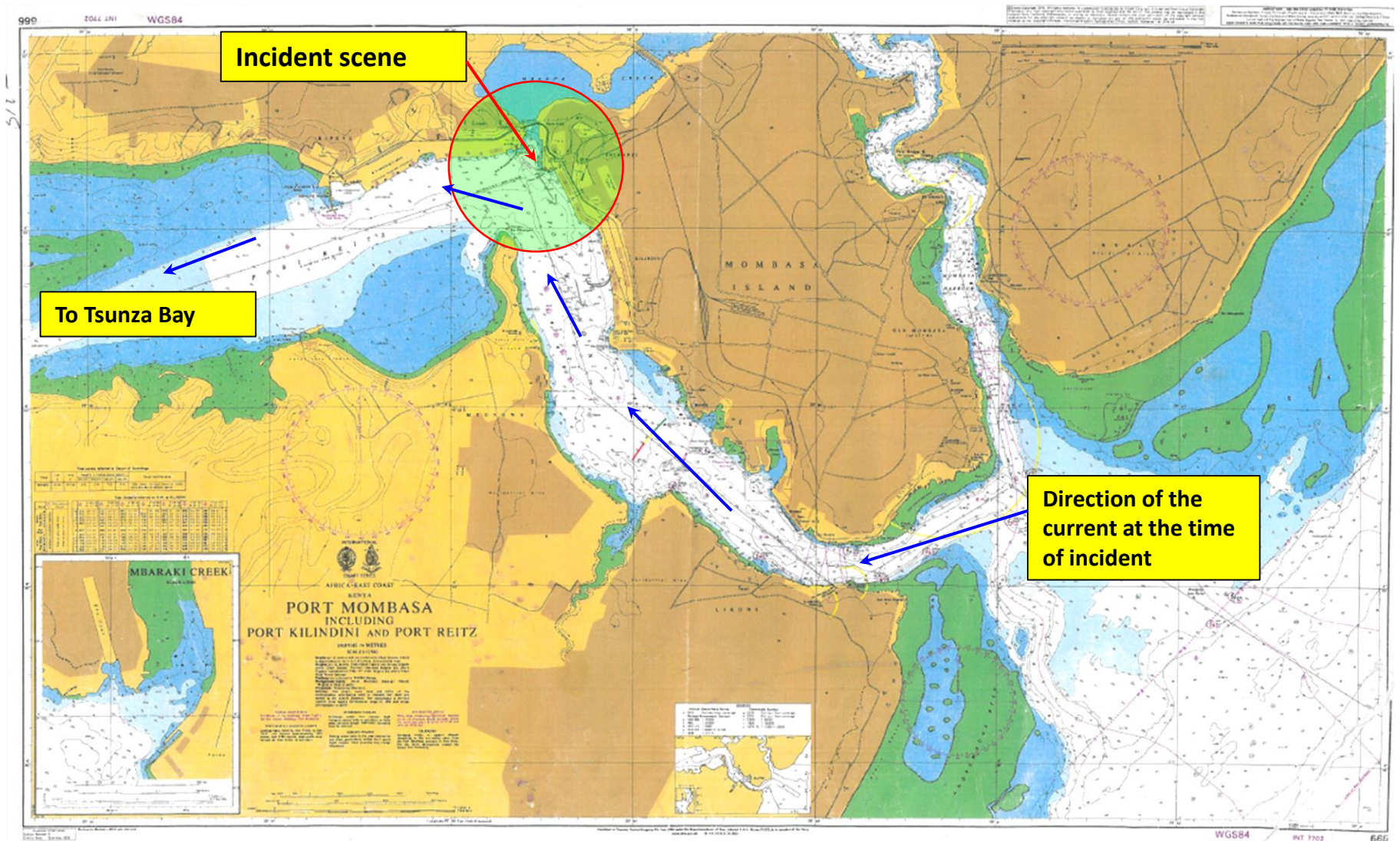
OSMAG/KPA/TKP MARINE EMERGENCY RESPONSE TRAINING & TIER II DRILL – 20TH – 23RD NOV 2018

v.) Map of Kenya & Location of Mombasa City



OSMAG/KPA/TKP MARINE EMERGENCY RESPONSE TRAINING & TIER II DRILL – 20TH – 23RD NOV 2018

Location of the Scene of the Incident



OSMAG/KPA/TKP MARINE EMERGENCY RESPONSE TRAINING & TIER II DRILL – 20TH – 23RD NOV 2018

Location of the Incident Scene (S.O.T), Marine Pollution Control Centre & Mombasa VTS Control Tower



10. EVENTS CHRONOLOGY (BEFORE ACTIVATION)

- The three main response teams (Booming team, Skimming team & Dispersants team) set up during the equipment familiarization and handling training the previous day were re-confirmed.
- Each team was allocated a trained Emergency Responder from KPA as the team leader. The KPA-PPCO was designated as the On Scene Commander (OCS).
- The following were appointed to the Incident Command Centre (ICC):-
 - OSMAG Technical Coordinator - Incident Commander & Ops Officer
 - TKP Environment Manager – Historian
 - KPA Environment Officer - Safety Officer
 - TKP MJT Manager - Liaison Officer
 - TKP HSEQ Engineer (Coast Region) – Planning & Logistics Officer
 - Two Staff from the Vivo Energy - Documentation Unit

12. KEY HIGHLIGHTS OF THE DRILL

- **Activation – 0955hrs**
- **Deployment – Booming Team & Dispersants Team deployed within 1 hour of activation**
- **Completion of exercise – 14.30hrs**
- **Re-assemble and debrief – 1530hrs**
- **Length of boom deployed – 200 meters**
- **Quantity of oil reportedly spilled – 50 tonnes**
- **Quantity recovered at SOT – 5 tonnes (10%)**
- **Quantity dispersed – 2.5 tonnes (5%)**
- **Quantity of dispersants used (Ratio 1:20) - 120 ltrs**
- **Assumed evaporation @ 5% - 2.5 tonnes**
- **Quantity remaining for next operational period response - 40 tonnes**
- **Time taken to respond – onsite teams: Immediate & Offsite Truck: 2 Mins.**
- **Duration of time taken to extinguish fire – 6 mins (from 13.26hrs)**

13. DEBRIEF OBSERVATIONS & ACTION PLAN

Issue reported by teams	Explanation & Proposed Corrective Action	By Who	By When
<p>Hydraulic hose of the Boom deployment power pack unit suffered rupture during response.</p> <p>Team however managed to improvise and Boom was successfully deployed manually</p>	<p>Manual deployment of the boom to be incorporated in the practical training session so that teams are equipped with the required skills in the unlikely failure of the power pack unit as was experienced during the exercise</p> <p>KPA to repair the hydraulic system.</p>	<p>OSMAG TC</p> <p>KPA</p>	<p>Next exercise</p> <p>Next exercise</p>
<p>Teams forgot to carry a toolbox while mobilizing equipment to the field.</p>	<p>Remind teams to carry toolbox to the field for minor repairs.</p>	<p>OSMAG TC</p>	<p>Next exercise</p>
<p>Diver who secured tow rope to shore encountered slippery surfaces which posed a risk of severe injury in case of slips and falls</p>	<p>Use anchors to secure the boom or have pre-identified points to secure the boom on shore.</p>	<p>Booming Team</p>	<p>Next exercise</p>
<p>Hydraulic oil spilled on deck was not cleared timely</p>	<p>Carry along sorbent pads to clean to potential slippery surfaces.</p>	<p>All teams</p>	<p>Next exercise</p>
<p>ST initially started skimming from inside the loop before realizing mistake & skimmed from the outside</p>	<p>Reinforce skimming technique during classroom session</p>	<p>OSMAG TC</p>	<p>Next training</p>

13. DEBRIEF OBSERVATIONS & ACTION PLAN

Issue reported by teams	Explanation & Proposed Corrective Action	By Who	By When
ST boarded KMB8 before clearance from the OS and later had to disembark as the boat was assigned to DT	Reinforce training on incident command & control, and chain of command.	OSMAG	Next training
A cover for one spraying nozzle fell into the water during response. Dispersant inlet was letting in sea debris before they closed it off	Reinforce skills training to DT on boat spray handling for different scenarios.	OSMAG	Next training
Challenges experienced during access to the scene of fire at Westmont attributed to trucks which were parked behind SOT.	To continually man the yard during response and marshal traffic to ensure unobstructed pathways during response	KPA	ASAP
Life ring was not well thrown to the responder who simulated a fall overboard. It had to be thrown twice before it reached the casualty.	Delegates to be trained more on the technique.	OSMAG & KPA	Next training
The dispersant team did not have a first aid kit.	OSMAG to restock first aid boxes, and teams to ensure they carry at least one box.	OSMAG & TEAMS	Next exercise

13. DEBRIEF OBSERVATIONS & ACTION PLAN

Issue reported by teams	Explanation & Proposed Corrective Action	By Who	By When
KMB8 did not have life rings.	To ensure that all boats have all life saving equipment as per KMA requirements	KPA	ASAP
DT did not have masks and safety goggles during response	OSMAG should procure masks and goggles to be issued to responders	OSMAG	Next exercise
Many responders experienced sun burns.	To consider providing sun protecting cotton hats to trainee responders as giveaways during future trainings	OSMAG	Next exercise

14. GENERAL CONCLUSION ON THE DRILL

- In relation to the set objectives, the drill was noted to have been successful.
- Areas for improvement were revealed at the MPCC, the Incident Command Centre, during classroom theory training; and during practical equipment training thereby presenting key learning's for continual improvement.
- The recommended actions to address the noted weaknesses are indicated in the summaries above.
- KPA, OSMAG & TKP ought to follow up and ensure that all the recommendations made are executed as required for improvement
- The effectiveness of executed corrective actions shall be assessed during at the next simulation exercise planned for 4th quarter 2019.

14. INVITATION LETTERS



TOTAL KENYA PLC

Our Ref: MD/018/09/117

September 20, 2018

The Managing Director
Kenya Ports Authority
P. O. Box 95009 - 80104
MOMBASA

Dear Madam,

RE: OIL SPILL RESPONSE SIMULATION DRILL ON 23RD NOVEMBER 2018 WITHIN THE PORT OF MOMBASA

Environmental sustainability is fundamental in all our operations in ports and terminals and is an important performance criteria for Total Kenya PLC and the Total Group worldwide. To meet this objective, Total Kenya PLC complies with stringent hydrocarbon vessel standards, assessment of marine and river terminals (jetties) and has a documented oil spill preparedness and response contingency plan. Notably, Total Kenya PLC is a founder member of OSMAG and recognizes the critical role KPA has continued to play in terms of personnel, policies and equipment to counter pollution.

Following the OSMAG/KPA/TKPLC marine emergency response training and tier 2 drills conducted every year since 2014, Total Kenya PLC once again wishes to spearhead this year's oil spill response simulation training and drill between 20th and 23rd of November 2018 within the port of Mombasa, which will ultimately involve many stake holders and principally KPA. We request for your consent, access and participation in the training and ultimately in the drill.

Our HSEQ Manager (Mr. John Muchunu) will hereafter contact the Harbour Master to discuss the finer details of the drill.

We look forward to our continued partnership.

Regards

Yours faithfully,
TOTAL KENYA PLC

Anne-Solange RENOUEARD
Managing Director

Regal Plaza, Limuru Road, P.O. Box 30736, 00100 GPO Nairobi
Tel: (254-20) 2897000 / 0719 027000; Fax: (254-20) 2666973
Email: somadministrator@total.co.ke; Website: www.total.co.ke

Directors: Stanislas Mittelman*, Jean-Christian Bergeron*, Anne-Solange Renouard* (Managing), Jerome Burban*, Joe Muchekehu, Joseph Karago, Margaret Shava (*French)



TOTAL KENYA PLC

Our Ref: HSEQ/ENV/2018/001

October 15, 2018

The Managing Director
Kenya Petroleum Refineries Limited
P.O. Box 90401-80100
MOMBASA, KENYA

Dear Sir/Madam,

RE: INVITATION TO PARTICIPATE IN MARINE EMERGENCY RESPONSE DRILL

Total Kenya Plc in conjunction with the Oil Spill Mutual Aid Group Society (OSMAG) and Kenya Ports Authority (KPA) has organized for a Tier II marine oil spill response training from **Tuesday 20th to Thursday 22nd November 2018** culminating in a drill on **Friday 23rd November 2018** starting from **0900hrs to 1300hrs** at the KPA Marine Pollution Control Centre.

The training and exercise is suitable for delegates who will play a role in an oil spill emergency response or those interested in developing their oil spill response skills. The drill will involve 'real time' response based on weather conditions and KPA mooring activities.

OSMAG, the Marine Pollution Control Centre and Total Kenya Plc will bear the training and exercise costs, but participants are expected to make their own travel and accommodation arrangements where necessary.

You are requested to nominate **2** person with priority to OSRAT members to participate in the training and the said exercise. Kindly forward your response and nomination to the following by **Friday, 9th November 2018** to facilitate finalization of arrangements:

1. Washington Okanga (OSMAG TC) - washington.okanga@osmagsociety.com
2. Frank Lilungu (Total Kenya HSEQ Engineer – Coast) – frank.lilungu@total.co.ke
3. Francis Saha (Total Kenya Environment Manager) – francis.saha@total.co.ke

We thank you and look forward to our continued cooperation.

Regards

Yours faithfully,
Total Kenya Plc

Olagoke ALUKO
MANAGING DIRECTOR

Regal Plaza, Limuru Road, P.O. Box 30736, 00100 GPO Nairobi
Tel: (254-20) 2897000 / 0719 027000; Fax: (254-20) 2666973
Email: administrator@total.co.ke; Website: www.total.co.ke

Directors: Stanislas Mittelman*, Jean-Christian Bergeron*, Anne-Solange Renouard* (Managing), Jerome Burban*, Joe Muchekehu, Joseph Karago, Margaret Shava (*French)

15. PHOTOS – DAY 1 & 2 - CLASSROOM TRAINING



Mr. Okanga (OSMAG TC) making a presentation



Mr. Gitau (OSMAG TA) making a presentation



Ms. Florence Bet (KPA) making a presentation



Mr. Okeri (KPA) making a presentation

15. PHOTOS – DAY 1 & 2 - CLASSROOM TRAINING



Mr. John Wataka (KPRL) making a presentation



Mr. Makhuli (KPA) making a presentation



Mr. Michael Mbaru (KMA) making a presentation



Mr. John Muchunu (TKP HSEQ Manager) making a presentation

15. PHOTOS – DAY 1 & 2 - CLASSROOM TRAINING



Delegates during the classroom sessions



A session in progress

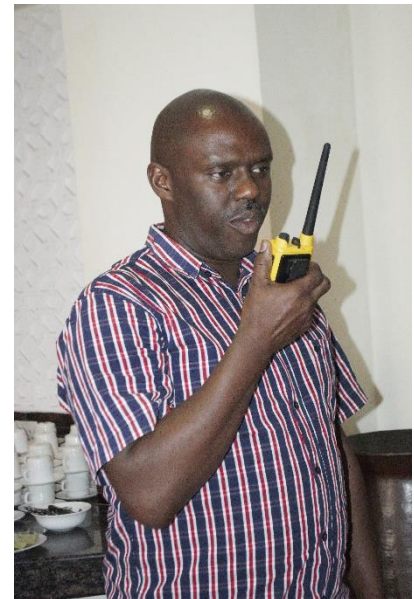
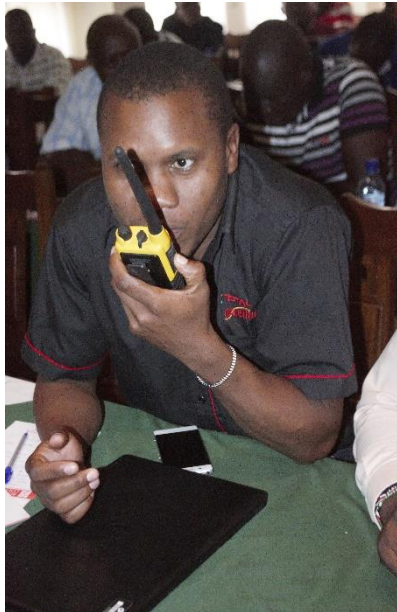


Delegates during a group interactive session



Delegates during a group interactive session

15. PHOTOS – DAY 1 & 2 - CLASSROOM TRAINING



15. PHOTOS – DAY 1 & 2 - CLASSROOM TRAINING



Mr. Steve Mogoi (TKP HSEQ Engineer) with other delegates during one of the sessions



Ms. Jemimah Muli (ERC) with other delegates during the sessions



A delegate making a statement during a session



Mr. John Muchunu (TKP HSEQ Manager) in one of the sessions



Facilitators desk. From L-R: Gitau (OSMAG), Makhuli (KPA), Lilungu (TKP) & Saha (TKP) during one of the sessions

15. PHOTOS – DAY 1 & 2 – GROUP PHOTO



Group Photo at the end of the two day classroom sessions

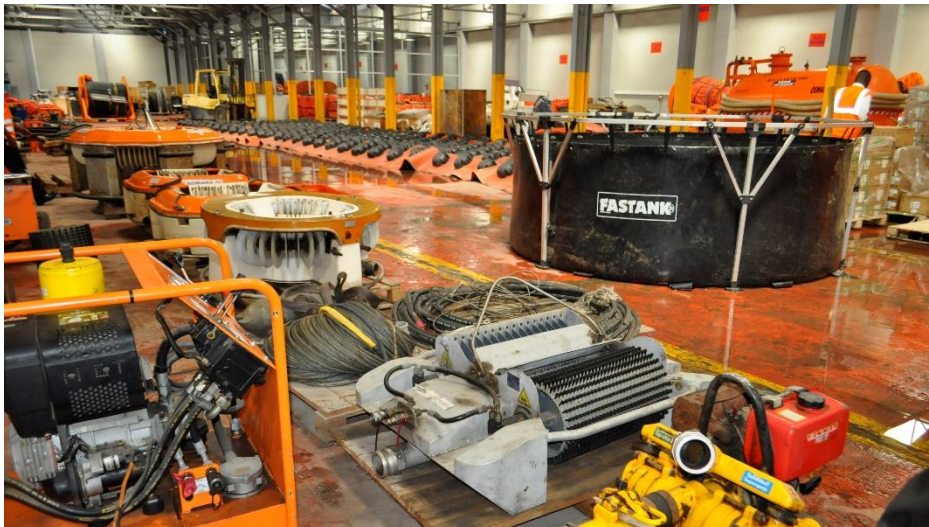
16. PHOTOS - DAY 3 - PRACTICAL EQUIPMENT TRAINING



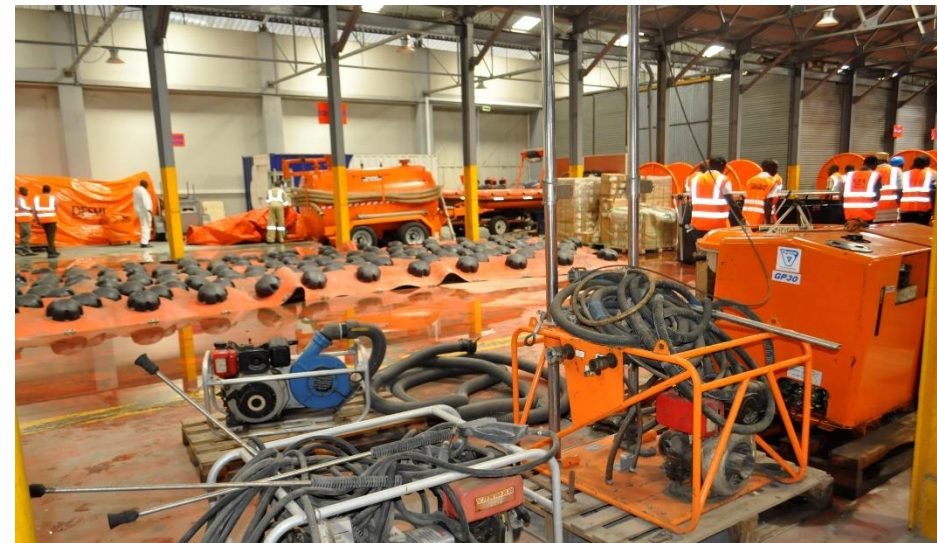
Delegates gather for Day 3 practical equipment training at the KPA Marine Pollution Control Center



Captain Namadoa (KPA – Principal Pollution Control Officer) takes delegates through a safety brief



Some of the equipment at the OSMAG warehouse within the KPA Marine Pollution Control Center



Some of the equipment at the OSMAG warehouse

16. PHOTOS - DAY 3 - PRACTICAL EQUIPMENT TRAINING



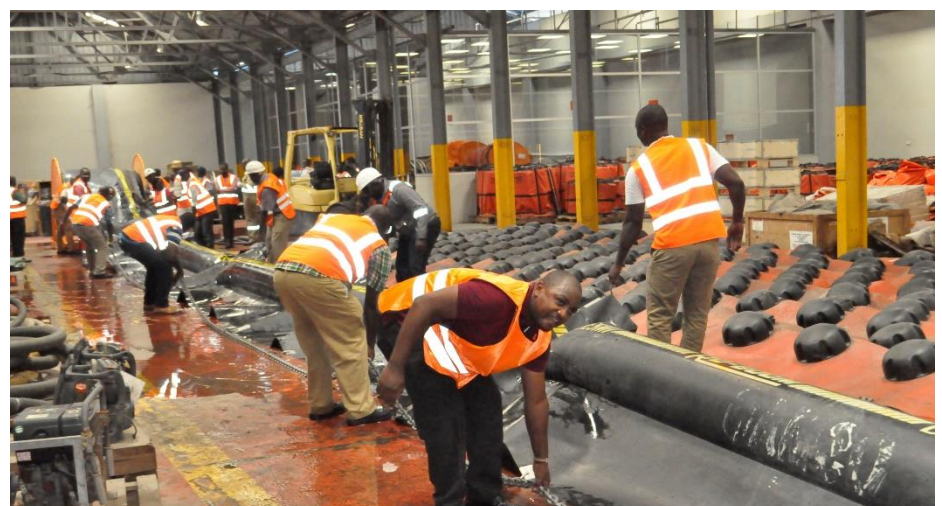
Mr. Okumu (KPA) demonstrating to delegates on use of the boom deployment equipment



Mr. Okumu (KPA) supervises delegates as they conduct practical deployment of the Ro-Boom



Mr. John Muchunu (TKP HSEQ Manager) looks on as delegates conduct practical deployment of the Ro-Boom

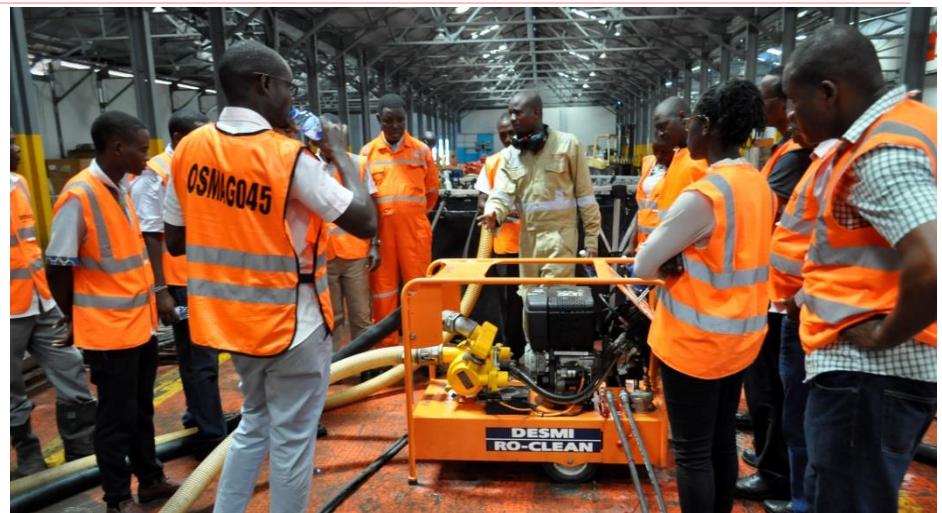


Delegates conduct practical deployment of the Ro-Boom

16. PHOTOS - DAY 3 - PRACTICAL EQUIPMENT TRAINING



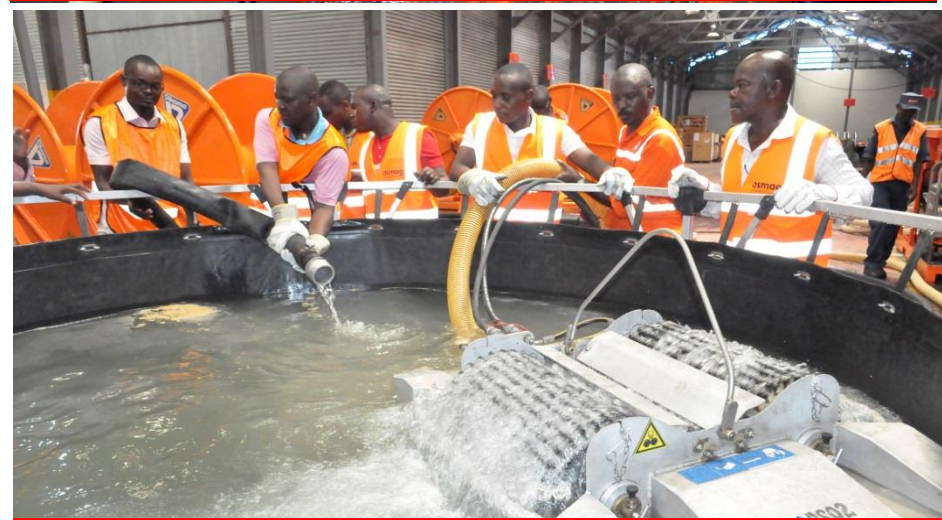
Mr. Gitau (OSMAG TA) explaining to delegates the different types of skimming equipment and their use



Mr. Gitau (OSMAG TA) trains delegates on how to operate a power pack unit for a skimmer



Delegates load an assembled Weir Skimmer onto the Ro-Tank

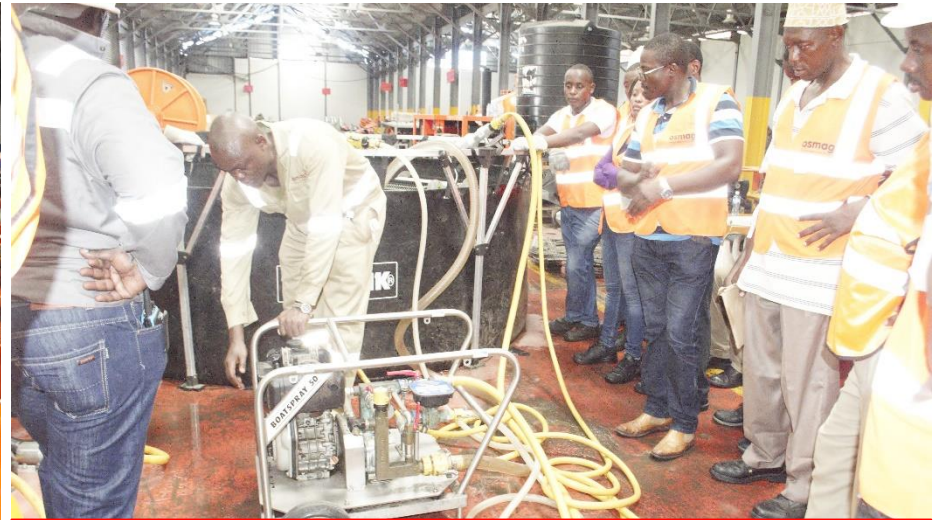


Delegates undergo practical training on operation of the Weir Skimmer

16. PHOTOS - DAY 3 - PRACTICAL EQUIPMENT TRAINING



Delegates execute practical assembly of a dispersants spraying unit



Engr Okanga trains delegates on how to operate the dispersants application power pack unit



Delegates gather around an assembled and charged FastTank unit to undergo practical training on dispersants application



Delegates undergo practical training on dispersants application

16. PHOTOS - DAY 3 - PRACTICAL EQUIPMENT TRAINING



Engr. Okanga (OSMAG TC) explains the various components of a Ro-Tank unit to delegates



Delegates inspect a fully assembled and charged FastTank unit



Engr. Okanga trains delegates on operations of a rubber dinghy



Engr. Okanga (OSMAG TC) trains delegates on other marine oil spill emergency response general equipment

17. PHOTOS - DAY 4 - EQUIPMENT DEPLOYMENT



Delegates gather at the KPA Marine Pollution Control Center on the day of the drill prior to activation



Captain Namadoa (KPA – Principal Pollution Control Officer) takes delegates through a safety brief and expectations



Captain Namadoa (KPA – Principal Pollution Control Officer) takes delegates through a safety brief and expectations



Teams are issued with life jackets at the end of the brief

17. PHOTOS - DAY 4 - EQUIPMENT DEPLOYMENT



TKP MD Mr. Olagoke Aluko & HSEQ Manager Mr. John Muchunu arrive at the Marine Pollution Control Center prior to activation



Captain Namadoa (KPA – Principal Pollution Control Officer) holds a brief meeting in his office with TKP MD Mr. Olagoke Aluko, Operations Manager Mr. Joshua Ouma & HSEQ Manager Mr. John Muchunu prior to the activation



TKP MD Mr. Olagoke Aluko & Operations Manager Mr. Joshua Ouma during the meeting in Captain Namadoa's office



TKP MD Mr. Olagoke Aluko signs the visitors book as Captain Namadoa & TKP Operations Manager Mr. Joshua Ouma look on

17. PHOTOS - DAY 4 - EQUIPMENT DEPLOYMENT



The Mombasa VTS Control Tower from where the activation signal was relayed



Dispersants Team carry equipment onto the K-Boat Jetty from the OSMAG warehouse after activation



Dispersants Team at the K-Boat Jetty awaiting to load equipment onto the response boat KMB-8



Dispersants Team load equipment onto the KMB-8 boat

17. PHOTOS - DAY 4 - EQUIPMENT DEPLOYMENT



Booming Team aboard the Tug Boat Nyangumi manually deploy the boom onto the water directed by their Team Leader Mr W. Okumu of KPA – (In white overall). Incident vessel is in background



Booming Team manually deploy the boom onto the water



Aerial view of the boom deployment process



Boom successfully deployed aside the vessel M/T Kristen Maersk

17. PHOTOS - DAY 4 - EQUIPMENT DEPLOYMENT



The Skimming Team arrive at the scene aboard the KMB7



The Skimming Team arrive at the scene aboard the KMB7



Skimming Team deploying the skimming unit onto the water



The Skimming Team in action aboard the KMB7 Mooring Boat

17. PHOTOS - DAY 4 - EQUIPMENT DEPLOYMENT



Dispersants Team arrive at the site aboard the KMB8 Boat



Dispersants Team in action aboard the KMB8 Mooring Boat



Dispersants Team in action aboard the KMB8 Mooring Boat



Dispersants Team in action aboard the KMB8 Mooring Boat

17. PHOTOS - DAY 4 - EQUIPMENT DEPLOYMENT



A man is reported to have slipped and fallen overboard the KMB8 boat, the On-Scene Commander (Captain Namadoa) on board a rubber dinghy directs immediate rescue response



A life ring is thrown to the man overboard as a diver also responds



Man overboard swims to the life ring



Man overboard is rescued and taken back to KMB8

17. PHOTOS - DAY 4 - EQUIPMENT DEPLOYMENT



Dignitaries including the MD of Total Kenya observe the drill exercise from aboard a KMA motor boat



Frank Lilungu explains a point to the team aboard the KMA motor boat



Booming Team celebrate upon completion of the exercise



Dispersants Team celebrate upon completion of the exercise

17. PHOTOS - DAY 4 - EQUIPMENT DEPLOYMENT



Skimming Team conducting recovery of the equipment from KMB7



Skimming Team pose for a group photo upon completion of the response exercise



Skimming Team conducting recovery of the equipment from KMB7



Dispersants Team conducting recovery of equipment from KMB8

17. PHOTOS - DAY 4 - EQUIPMENT DEPLOYMENT



Participants are served with lunch and refreshments



Engr. Okanga facilitates the debrief session after lunch



Mr. Mwandembo (KPA – Fire Department) gives feedback during the debrief session



Mr. John Muchunu makes the closing remarks after the debrief

THANK YOU

