SHIPBOARD

OIL POLLUTION

EMERGENCY PLAN

(SOPEP)

SHIPBOARD OIL POLLUTION EMERGENCY PLAN

In accordance with Regulation 37 of Annex I of MARPOL 73/ 78

SHIP´S IDENTIFICATION

Class-Register-Number	9 481 532
Name of Ship	Independent Voyager
Distinctive Number or Letters (Call Sign)	A8XY2
IMO-Number	9 481 532
Type of Ship	Container
Port of Registry	Monrovia
Gross Tonnage	25 861
Flag	Liberia

Owner/ Managers: see Appendix 4 „Ship Interest Contacts“

TABLE OF CONTENT/ INDEX OF SECTIONS

INTRODUCTION 4

SECTION 1: PREAMBLE 5

SECTION 2: REPORTING REQUIREMENTS 7

2.1 General 7

2.2 Reporting Procedures 7
2.2.1 When to report 7
2.2.1.1 Actual Discharge 7
2.2.1.2 Probable Discharge 7
2.2.2 Information Required 8
2.2.3 Who to Contact 10
2.2.3.1 Coastal State Contacts 10
2.2.3.2 Port Contacts 10
2.2.3.3 Ship Interest Contacts 11

SECTION 3: STEPS TO CONTROL DISCHARGE 12

3.1 Operational Spills 13
3.1.1 Operational Spill Prevention 13
3.1.2 Pipeline Leakage 13
3.1.2. Tank Overflow 13
3.1.3 Hull Leakage 14
3.1.5 Spills caused by Equipment in Machinery Spaces 14

3.2 Spills Resulting From Casualties 14
3.2.1 Ship grounded / stranded 15
3.2.1.1 Prevention of Fire and Explosion 15
3.2.1.2 Extension of Hull Damage / Containment System Failure 15
3.2.1.3 Procedures to Reduce or Stop Outflow of Oil 16
3.2.1.4 Refloating by own Means 16
3.2.1.5 Securing the Ship 17
3.2.2 Fire/ Explosion 17
3.2.3 Collision 17
3.2.4 Hull Failure 18
3.2.5 Excessive List 19
3.2.6 Ship submerged/foundered/wrecked 19
3.2.7 Hazardous Vapour release 19

3.3 Priority Actions 20

3.4 Mitigating Activities 20

3.5 Transfer of Bunker/ Lightening 20

3.6 Damage Stability and Hull Stress Calculation 22

3.7 General Responsibilities of the Master and designated Officers/ Crew Members 23
3.7.1 General Responsibilities 24

SECTION 4: NATIONAL AND LOCAL CO-ORDINATION 25

SECTION 5 NON-MANDATORY INFORMATION (VOLUNTARY PART).....27

APPENDIX 1 INITIAL NOTIFICATION.....29

APPENDIX 2 COASTAL STATE CONTACTS (FOCAL POINTS).....32

APPENDIX 3 PORT CONTACTS.....33

APPENDIX 4 SHIP INTEREST CONTACTS.....34

INTRODUCTION

1. This Shipboard Oil Pollution Emergency Plan (hereafter referred to as the "Plan") is written in accordance with the requirements of regulation 37 of Annex I of the International Convention for the Prevention of Pollution from Ships, 1973 as modified by the Protocol of 1978 relating there to.

2. The purpose of the Plan is to provide guidance to the Master and officers on board the ship with respect to the steps to be taken when an oil pollution incident has occurred or is likely to occur.

3. The Plan contains all information and operational instructions as required by the "Guidelines for the development of the Shipboard Oil Pollution Emergency Plan" as developed by the Organization (IMO) and published under MEPC.54(32), as amended by Resolution MEPC.86(44) and Resolution MEPC.137(53). The appendices contain names, telephone, telex numbers, etc., of all contacts referenced in the Plan, as well as other reference material.

4. The Plan has been approved by Lloyd's Register on behalf the Administration and, except as provided below, no alteration or revision shall be made to any part of it without the prior approval of Lloyd's Register.

5. Changes to Section 5 and the appendices will not be required to be approved by Lloyd's Register. The appendices should be maintained up to date by the owners, operators and managers.

SECTION 1: PREAMBLE

1.1 This Plan is available to assist the ship's personnel in dealing with an unexpected discharge of oil. Its primary purpose is to set in motion the necessary actions to stop or minimize the discharge of oil and to mitigate its effects.

1.2 Effective planning ensures that the necessary actions are taken in a structured, logical, safe and timely manner.

1.3 The primary objectives of this Plan are to

- prevent oil pollution
- stop or minimize oil outflow when a damage to the ship or its requirements occurs
- stop or minimize oil outflow when a operational spill occurs in excess of the quantity or Instantaneous rate permitted under the present Convention

1.4 Further, the purpose of the Plan is to provide the Master, officers and certain crew members with a practical guide to the prevention of oil spills and in carrying out the responsibilities associated with regulation 37 of Annex I to MARPOL 73/ 78

- procedures to report an oil pollution incident
- Coastal State contacts (Focal Points) and Port Contact Lists to be contacted in the Event of an oil pollution incident
- response actions to reduce or control the discharge of oil following an incident
- co-ordination with national and local Authorities in combating oil pollution

1.5 In summary, the Plan will serve to promote a practised response when the ship's personnel are faced with an oil spill.

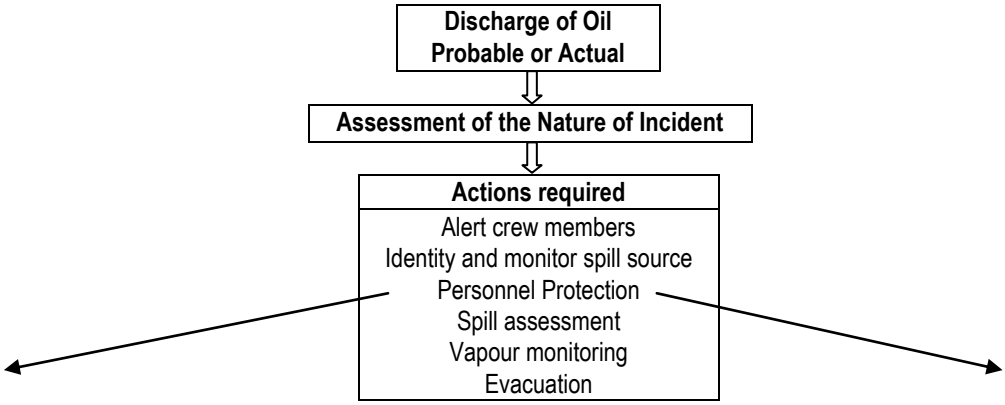
1.6 Although the Plan is designed as a ship-specific tool it must also be considered as an additional instrument and as a link to shore-based plans. With this the Plans allow an efficient co-ordination between the ship and shore-based Authorities/ Organizations in mitigating the effects of an oil pollution incident.

1.7 The Plan includes a summary flowchart (see page 6) to guide the Master through reporting and acting procedures required during an oil pollution incident response.

1.8 The Plan is likely to be a document used on board by the Master and officers of the ship and must therefore be available in the working language used by them.

SHIPBOARD OIL POLLUTION EMERGENCY PLAN – SUMMARY FLOWCHART

This flow diagram is an outline of the course of action that shipboard personnel should follow in responding to an oil pollution emergency based on the guidelines published by the Organization. This diagram is not exhaustive and should not be used as a sole reference in response. Consideration should be given for inclusion of specific reference to the Plan. The steps are designed to assist ship personnel in action to stop or minimize the discharge of oil and mitigate its effects. These steps fall into two main categories – reporting and action.



REPORTING	ACTION TO CONTROL DISCHARGE	
By Master and / or designated crew member	Measures to minimize the escape of oil and threat to the marine environment	
When to report All probable and actual spills **How to report** - By quickest means to coastal radio station - Designated ship movement reporting station or - Rescue Co-ordination Centre (at sea) - By quickest available means to local authorities **Who to report** - Nearest Coastal State Harbour and terminal operators (in port) - Shipowner´s manager; P & I insurer - Head Charterer; Cargo owner - Refer to contact lists **What to report** - Initial report (Res. A.851(20)) - Follow-up reports - Characteristics of oil spilled - Cargo/ ballast/ bunker dispositions - Weather and sea conditions - Slick movement - Assistance required • Salvage • Lightening capacity • Mechanical equipment • External strike team • Chemical dispersant/ degreasant	NAVIGATION MEASURES - Alter course/ position and/ or speed - Change of list and/ or trim - Anchoring - Setting aground - Initiate towage - Assess safe haven requirements - Weather/ tide/ swell forecasting - Slick monitoring - Record of events and communications taken	SEAMANSHIP MEASURES - Safety assessment and precaution - Advice on priority countermeasures/ preventive measures - Damage stability and stress consideration - Ballasting/ deballasting - Internal cargo transfer operations - Emergency ship-to-ship transfers of cargo and/ or bunker - Set up shipboard response for: • Leak sealing • Fire fighting • Handling of ship-board response equipment (if available) • Etc.

STEPS TO INITIATE EXTERNAL RESPONSE
- Refer to Costal Port State listings for local assistance
- Refer to ship interest contact list
- External clean-up resources required
- Continued monitoring of activities

SECTION 2: REPORTING REQUIREMENTS

2.1 General

The reporting requirements of this section complies with those of regulation 37 of MARPOL 73/ 78, Annex I.

When the ship is involved in an incident which results in the discharge (or probable discharge) of oil, the Master is obliged under the terms of MARPOL 73/ 78 to report details of the incident, without delay, to the nearest Coastal State by means of the fastest telecommunication channels available.

The intent of these requirements are to ensure that Coastal States are informed, without delay, of any incident giving rise to oil pollution, or threat of oil pollution, of the marine environment, as well as of assistance and salvage measures, so that appropriate action may be taken.

Without interfering with shipowners' liability, some coastal states consider that it is their responsibility to define techniques and means to be taken against an oil pollution incident and approve such operations which might cause further pollution, i.e. lightening. States are in general entitled to do so under the International Convention relating to Intervention on the High Seas in Cases of Oil Pollution Casualties, 1969.

2.2 Reporting Procedures

For easy reference the reporting requirements in the context of this Plan are divided in the following information blocks:

2.2.1 When to report

Taking the summary flowchart as shown on page 6 as a basic guide into consideration reports is necessary in the following cases:

2.2.1.1 Actual Discharge

The Master is obliged to report to the nearest Coastal State whenever there is a discharge of oil above the permitted level for whatever reason, including result:

- from damage to the ship
- from damage to the ship's equipment
- for the purpose of securing the safety of a ship or saving life at sea
- a discharge during the operation of the Ship in excess of the quantity or instantaneous rate permitted under the present Convention

2.2.1.2 Probable Discharge

The Master is obliged to report even when no actual discharge of oil has occurred but there is a probability that one could.

However, as it is not practicable to lay down precise definitions of all types of situations involving probable discharge of oil which would warrant an obligation to report the Master is obliged to judge by him whether there is such a probability and whether a report should be made.

Therefore, it is recommended that, at least, the following events

- Damage, failure or breakdown which affects the safety of the ship (e.g. collision, grounding, fire, explosion, structural failure, flooding, cargo, cargo shifting etc.)

Or

- Failure or breakdown of machinery or equipment which results in impairment of the safety of navigation (e.g. failure or breakdown of steering gear, propulsion, electrical generating system, essential ship borne navigation aids etc.)

are carefully considered by the Master – taking into account the nature of the damage failure or breakdown of the ship, machinery or equipment as well as the ship's location, proximity to land, weather, state of the sea and traffic density – as cases in which a probable discharge of oil is most likely.

If in doubt, the Master should always make a report in cases aforementioned.

In all cases the Authorities should be kept informed by the Master as how the situation progress and be advised when all threat of pollution has passed.

2.2.2 Information Required

As required in article 8 and Protocol I of MARPOL 73/ 78 Convention the Master or other persons having charge of the ship should report the particulars of any pollution incident. In this context the International Maritime Organization (IMO), in 1997, adopted Resolution A. 851 (20) "General Principles for Ship Reporting Systems and Ship Reporting Requirements, including Guidelines for Reporting Incidents involving Dangerous Goods, Harmful Substances and/ or Marine Pollutants".

The intent of the Resolution aforementioned is to enable Coastal States and other interested parties to be informed, without delay, of any incident giving rise to oil pollution, or threat of oil pollution, of the marine environment, as well as of assistance and salvage measures, so that appropriate action may be taken.

Nothing in this chapter relieves the Master in using sound judgement to make sure that any incident or probable discharge of oil is reported as quickly as possible in the prevailing situation.

When transmitting initial reports to the authorities of the nearest Coastal State the Master or other persons dealing with such a transmission should take note of Resolution A. 851 (20).

Especially, the format of the initial report as well as supplementary of follow-up reports should conform to the guidance contained in Res. A. 851 (20). All reporting whether initial or follow-up, should follow IMO's reporting format as outlined below and should contain the following information:

LABEL	FUNCTION	EXPLANATION
A	Ship	Name, call sign and nationality
B	Date and time (UTC) of event	A 6-digit group giving day of month (first two digits), hours & minutes (last four digits)
C	Position	A 4-digit group giving latitude in degrees and minutes suffixed with N or S, and a 5-digit group giving longitude in degrees and minutes suffixed with E or W
D	Position	True bearing (first 3 digits) and distance (state distance) in nautical miles from clearly identified landmark (state landmark)
E	True course	A 3-digit group
F	Speed at time of incident	In knots and tenths of knots as a 3-digit group
L	Route information	Details of intended track
M	Radio communications	Full details of radio stations (names) and frequencies being guarded
N	Time (UTC) of next report	A 6-digit group as under BB above
P	Cargo on board: can be included in „RR„ as relevant	Type(s) and quantity(ies) of cargo/ bunker on board and brief details of any dangerous cargoes as well as harmful substances and gases that could endager persons or the environment
Q	Defects or damage or defencies or other limitations	Brief details of conditions of the ship as relevant; ability to transfer cargo/ ballast/ bunker fuel
R	Description of pollution or possible overboard discharge	Brief details of pollution; this should include the type(s) of fuel oil, an estimate of the quantity discharged, whether the discharge is continuing, the cause of the discharge and, if possible, an estimate of the movement and area of slick
S	Weather conditions	Brief details of weather and sea conditions prevailing including wind force and direction and relevant swell details
T	Ship`s representative and/ or owner	Name, address, telex and telephone number of the ship's owner and representative (charterer, manager or operator of the ship or their agents)
U	Ship's size and type	Details of length, breadth and type of ship as well as draught
X	Miscellaneous and additional information	Any other information including relevant details such as brief details of incident, need for outside assistance, action being taken to limit further discharge; details of any personnel injuries sustained, details of P & I Club and local correspondent.

A sample format for initial notification and a detailed example of an initial report is shown within the appendices under App. 1.

All follow-up reports by the Master should include information relevant to the Coastal State Authorities to keep them informed as the incident develops.

Follow-up reports should include information on any significant changes in the ship's condition, the rate of release and spread of oil, weather and sea conditions and clean-up activities underway.

In this context details of bunker disposition, condition of any empty tanks and nature of any ballast carried are information needed by those involved in order to assess the threat posed by an actual or probable discharge of oil from the damaged ship.

2.2.3 Who to Contact

The Master is responsible for reporting any incident involving an actual or probable discharge of oil.

Taking into consideration the summary flowchart shown on page 6 the Master of the ship involved in any kind of an actual or probable discharge of oil, cases of which are defined under SECTION 2 (sub-paragraph 2.2.1.1 and 2.2.1.2) of this Plan should report details on the incident immediately (see Appendix1)

Nothing in this chapter relieves the Master from using sound judgement to make sure that any incident is reported as quick as possible in the prevailing situation.

2.2.3.1 Coastal State Contacts

In order to expedite response and minimize damage from an oil pollution incident at sea, it is essential that appropriate Coastal States be notified without delay.

In this context the use of the list of agencies or officials of Administrations responsible for receiving and processing reports (so called "Focal Points") as developed by the Organization (IMO) in conformity with article 8 of the Convention is recommended.

Such a list is shown under App. 2.

An updated list of existing "Focal Points" is available from the Internet pages of IMO under address:

http://www.imo.org/ >> National Contacts >>> MEPC.6/Circ. xx

In the absence of such a list or listed focal point for a single country/ Coastal State, the Master should contact by the quickest available means

- the nearest coastal radio station or
- the designated ship movement reporting station or
- the nearest Rescue Co-Ordination Centre (RCC).

2.2.3.2 Port Contacts

For the ship in port, notification of local agencies, combatting teams or clean-up companies will speed up response. If an oil spill occurs during the ship's stay in port, whether operational or as a result of an incident, the Master should inform the appropriate local agencies (e.g. National Response Center, Terminal/ Port Authorities etc.) without undue delay.

If the ship is engaged in a regular service between ports/ terminals the Master or any other person aboard delegated by the Master should provide a list with the relevant Port Contact addresses for each port served regularly of Authorities/ persons and/ or terminals dealing with an oil spill.

This list should be regularly updated.

The "Port Contact List" is shown in the App. 3.

If a change in the ship's range of trade or a change in the addresses of persons/ Authorities of the ports/ terminals served regularly takes place the Master or any other person aboard delegated by the Master is required to issue a new list.

Where ship's service makes it not feasible to prepare such a list the Master should seek guidance concerning such local Port Contacts and local reporting procedures upon arrival in port.

Addresses obtained in this way should be documented aboard in the form that the Master considers most effective and should be attached to the Plan.

2.2.3.3 Ship Interest Contacts

For Ship Interest Contacts it is necessary to have information at the Master´s disposal in case of an oil spill for informing the home office of the ship's owner or operator, the local agent of the company, the appropriate P & I Club and correspondents, clean-up contractors etc.

This information should be provided in the form of a so-called "Ship Interest Contact List".

The "Ship Interest Contact List" is shown in the Appendix 4.

To avoid a duplication of reports and to co-ordinate the Plan and the company´s shoreside plan(s) responsible for informing the various Ship Interested Contacts is the Master.

SECTION 3: STEPS TO CONTROL DISCHARGE

Ship personnel will most probably be in the best position to take quick action to mitigate or control the discharge of oil from their ship.

Therefore, this Plan provides the Master with clear guidance on how to accomplish this mitigation for a variety of situations.

It is the Master´s responsibility to initiate a response in the event of a discharge of oil or substantial threat of discharge of oil – actual or probable – into the waters.

In no case action should be taken that in any way could jeopardize the safety of personnel either onboard or ashore.

The following enumeration specifies different kinds of possible operational oil spills with regard to reactions to be taken.

3.1 Operational Spills

3.1.1 Operational Spill Prevention

Crew members shall maintain a close watch for the escape of oil during bunker operations.

Prior to bunker transfer the competent crew members should mobilize the oil spill equipment, as far as available on board, and place it close to the planned operation, e.g. along the railing on the side at which bunker operation takes place.

Before bunker handling commences, all deck scuppers and open drains must be effectively plugged. Accumulations of water should be drained periodically and scupper plugs replaced immediately after the water has run off. Any free floating oil or oil droplets should be removed prior to draining.

Bunker tanks which have been topped up should be checked frequently during the remaining bunker operations to avoid an overflow.

Unless there are permanent means for retention of any slight leakage at ship/ shore connections for bunker transfer, it is essential that a drip tray is in place to catch any leaking oil.

The removed bunker oil and the used clean-up material should be retained on board in proper containment units until it can be discharged to a reception facility.

3.1.2 Pipeline Leakage

If a leakage occurs from a pipeline, valve, hose or metal arm, operations through that connection should be stopped immediately until the cause has been ascertained and the defect remedied.

Defective pipe sections should be isolated. Affected sections should be drained down to an available empty or slack tank.

If a leakage occurs from a hydraulic pipeline, operations should be stopped immediately.

Initiate clean-up procedures.

The removed bunker oil and the used clean-up material should be retained on board in proper containment units until it can be discharged to a reception facility.

Inform in line with Section 2 all parties interested about Pipeline Leakage and the actions taken so far.

3.1.3 Tank Overflow

If there is a tank overflow all bunker operations should be stopped immediately and should not be restarted until the fault has been rectified and all hazards from the released oil have been eliminated.

If there is any possibility of the released oil or oil vapours entering an engine room intake appropriate preventive steps must be taken quickly.

Promptly shift bunker oil from the tank overflowed to an available empty or slack tank or prepare pump(s) or transfer the excess ashore.

Initiate clean-up procedures.

The removed bunker oil and the used clean-up material should be retained on board in proper containment units until it can be discharged to a reception facility.

Inform in line with Section 2 all parties interested about Tank Overflow and actions taken so far.

3.1.4 Hull Leakage

Identify leaking tank; consider diver if necessary and possible.

Reduce level in tank in question well below sea level.

If it is not possible to identify the leaking tank, reduce level in all tanks in vicinity. In this case give careful consideration to hull stress and stability.

If there is a spillage due to suspected hull leakage reduce the head of bunker and promptly transfer the bunker oil to an available empty or slack tank or, if berthed, discharge ashore in suitable barges/ tanks.

Inform in line with SECTION 2 all parties interested about Hull Leakage and the actions taken so far.

3.1.5 Spills caused by Equipment in Machinery Spaces

If operational oil spills are caused by a failure of equipment in machinery spaces any further operations of this equipment should be stopped immediately or measures are to be taken to avoid an oil spill.

Such equipment may be:

- Oily-water separating equipment or oil filtering equipment to deoil bilge water from the engine room bilges
- Valves in pipes connecting ballast/ bilge systems
- Cooling pipes in oil cooler systems
- Gearing of bow thrusters
- Stern tubes

The removed bunker oil and the used clean-up material should be retained on board in proper containment units until it can be discharged to a reception facility.

3.2 Spills Resulting From Casualties

In the event of a casualty the Master´s first priority is to ensure the safety of the ship's personnel, and to initiate actions which may prevent escalation of the incident and marine pollution.

3.2.1 Ship grounded / stranded

The Master´s priority should be to ensure that he as soon as possible receives detailed information about the damage that the ship has been sustained, in order to determine remedial action to be taken for ensuring the safety of the ship and its crew.

Furthermore, the Master should also consider

- Danger to the ship's complement if the ship should slide off grounding site
- Danger of ship being shattered by heavy seas or swell
- Health hazards to the ship's crew and surrounding population due to release of oil or other hazardous substances in dangerous concentrations
- That fires may start due to released flammable substances and uncontrolled ignition sources
- Should the damage which the ship has sustained be of such an extent that the stability cannot be computed on board, the Master should seek assistance according to subparagraph 3.6

Also, the ship's Master shall take into account the following considerations:

- Is the vessel constantly being struck in the seaway?
- Is the vessel exposed to torsion?
- Is there a large difference in the tidal rangers at the grounding site?
- Are there strong tidal currents in the grounding area?
- May the vessel drift further up on the shore, due to high tides, wind and waves?

3.2.1.1 Prevention of Fire and Explosion

If the ship is aground and therefore cannot manoeuvre, all possible sources of ignition should be eliminated and action taken to prevent flammable vapours from entering the machinery spaces or the accommodation.

3.2.1.2 Extension of Hull Damage / Containment System Failure

First, a visual inspection should be carried out.

Check for visible oil along hull or in wake of the ship during day time. At night a stick with white cloth (or sheet of sorbent) around it may be lowered into the water alongside the ship to check for oil leakages.
All ballast/ bunker tanks to be sounded (ullage),
All other compartments which may have contact with the sea should be sounded to ensure that they are intact.

Soundings of ballast tanks/ bunkers tanks are to be compared with last soundings to check for possible leaks.

Sounding to be taken around the ship establish the ship's position on the grounding area.

When the ship is aground, due regards should be given to the indiscriminate opening of ullage plugs, sighting ports etc. as loss of buoyancy could be the result of such actions.

Any list of the ship shall be noted and included in the report for assistance.

3.2.1.3 Procedures to Reduce or Stop Outflow of Oil

The Master should assess the possibility of damage to the environment and whatever action can be taken to reduce further damage from an oil release, such as:

- Transfer of bunkers internally provided shipboard piping system is in an operational condition
- If the damage is fairly limited and restricted, i.e. to one or two tanks, consideration should be given to transfer of bunkers internally from the damaged tank(s) to intact tanks, taking into account the impact on the ship's overall stress and stability
- Isolate damaged/ penetrated bunker tank(s) hermetically to ensure that hydrostatic pressure in tanks remains intact during tidal changes
- Evaluate possibility of pumping water into a damaged tank inorder to form a water bottom stopping the outfow of oil
- Evaluate the necessity of transferring bunkers to barges or other ships and request such assistance accordingly
- Evaluate the possibility of additional release of oil.

In case of large differences between the tidelevels, the Master should try to isolate the damaged tank(s) to reduce additional loss of bunker oil.

3.2.1.4 Refloating by own Means

The Master should also evaluate the question of refloating the vessel by own means. Before such an attempt is made, it must be determined:

- whether the ship is damaged in such a way that it may sink, break up or capsize after getting off
- whether the ship after getting off may have manoeuvering problems upon leaving the dangerous area by own means
- whether machinery, rudder or propeller are damaged due to grounding or may be damaged by trying to get off ground by own means
- whether the ship may be trimmed or lightened sufficiently to avoid damage to other tanks in order to reduce additional pollution from oil/ bunker spillage
- whether evaluation: whether there is time / reason to await improvements in weather or tide.

3.2.1.5 Securing the Ship

If the risk of further damage to the ship is greater in an attempt to refloat the ship by own means, than in remaining aground until professional assistance has been obtained, the ship's Master should try to secure the ship as much as possible by:

- Trying to prevent the ship from moving from ist present position
- By dropping anchors (adequate water depth and anchor ground provided)
- By taking ballast into empty tanks, if possible
- Trying to reduce longitudinal strain on hull by transferring ballast or bunkers internally
- Reducing fire risk by removing all sources of ignition.

Inform in line with Section 2 all parties interested about the Grounding and the actions taken so far.

3.2.2 Fire/ Explosion

Should an explosion and a fire occur on board, sound the GENERAL ALARM immediately.
Further actions should be initiated in accordance with the ship's Muster List.
In case of fire and explosion the following priorities exist:

- Rescueing lives
- Limiting the damage/ danger to the ship and cargo
- Preventing environmental pollution

Steps to control the discharge of oil will depend largely on the damage to ship and cargo.
Special information thereto is contained in subparagraphs 3.2.4, 3.2.5 and 3.2.6.
Inform in line with Section 2 all parties interested about the Fire/ Explosion and the actions taken so far.

3.2.3 Collision

Should the ship be involved in a collision with another ship, the Master should as soon as possible identify the extent of damage to his own vessel.

When a collision occurs, the GENERAL ALARM should be sounded immediately for the personnel to muster at their designated Muster Stations.

The following check list should assist the Master in assessing the situation:

- Are any tanks penetrated above or below the waterline?
- If ships are dead in the water and interlocked, what is most prudent, to stay interlocked or separate?
- Is there any oil spill at present – small or large? Will a separation of the interlocked ships create a larger oil spill than if the ships stay interlocked?
- If there is an oil spill, will the separation of the ships cause sparks that can ignite the spilled oil or other flammable substances leaked out from the ships?
- Are the ships creating a greater danger to other traffic in the area if the are interlocked than if separated?
- Is there a danger to either ship of sinking after being separated?
- If the ships are separated, how is the manoeuverability of the own ship?

If separation of the ships takes place, alter course to bring the own ship windward of any oil slick, if possible.

Shut down all none essential air intakes.

Isolate damaged/ penetrated tank(s) by hermetically closing the tank(s), if possible.

When it is possible to manoeuvre, the Master, in conjunction with the appropriate shore authorities, should consider moving his ship to a more suitable location in order to facilitate emergency repair work or lightening operations, or to reduce the threat posed to any sensitive shoreline areas.

Inform in line with Section 2 all parties interested about the collision and the actions taken so far.

3.2.4 Hull Failure

Should the ship lose one or more shellplatings, develop major cracks, or suffer severe damage to the hull, the Master should immediately sound the GENERAL ALARM to call the crew members to their Muster Stations, and inform them of the situation, and prepare lifeboats for launching if necessary.

The Master should then assess the situation, and confer with his senior officers.
The Master should obtain the latest weather forecast, and asses its impact on the present situation.

Furthermore, the following questions should be considered and should be asked:

- Is the ship in any immediate danger of sinking or capsizing?

If YES:

- Send distress message
- Immediately abandon the ship

If NO, initiate damage control measures as found necessary by considering the following points:

- Can the vessel manoeuvre on it's own?
- Has the ship lost buoyancy?
- If the ship has a list due to loss of ballast, cargo/ bunker or buoyancy, is it necessary and possible to rearrange the bunker or ballast by internal transfer operation in order to bring the ship to an even keel?
- Is it necessary to dump cargo in order to maintain stability without changing the stress situation?
- Can this operation wait till another ship/ barge can receive that cargo?
- Is there any abnormal change in the ship's stability and stress situation?
- Can the change in the ship's stability and stress situation be monitored and calculated on board? If not, the Master should seek assistance according to subparagraph 3.6.
- Does the ship need assistance or escort to nearest port of refuge or repair port?
- Might it be prudent to salve part of the crew members in case the situation should worsen, or is it necessary to abandon the ship totally?

Inform in line with Section 2 all parties interested about the Hull Failure and the actions taken so far.

3.2.5 Excessive List

Should the ship for some reasons suddenly start to list excessively during discharging/ loading operations, or bunkering, all ongoing operations should be stopped immediately until the cause has been determined.

The Officer on Duty should inform the Master and/ or Chief Officer without delay.

The Master should try to determine the reason for the excessive list, and take steps to rectify the situation and to stabilize the ship's condition:

- Check reason(s) for list
- Soundings/ ullage to be taken in all tanks
- Bunker/ ballast pumps to be made ready
- Consider measures to minimize list in transferring liquid from one compartment to another
- Ensure water tightness of empty spaces
- Close all openings
- Secure vent pipes to avoid ingress of water
- If bunkering: Change to corrective tanks for rectifying the situation
- If ballasting/ deballasting: Change to corrective tanks to rectify the situation
- If there is reason to believe that the list may cause an oil spill, notify as per Section2
- If the ship's crew is in jeopardy, prepare lifeboats for launching, and notify as per Section 2

If the situation is brought under control, inform all parties interested.

3.2.6 Ship submerged/foundered/wrecked

If the ship is wrecked to the extent that it or parts of it are submerged take all measures to evacuate all persons on board. Avoid contact with any spilled oil. Alert other ships and/or the nearest coastal state for assistance in rescuing lives and the ship as far as possible.

3.2.7 Hazardous Vapour release

In case of any vapour release out of the containment system precautions have to taken to protect the persons onboard against contamination. The ship should be brought with the accommodation upwind ot the spill area as far as possible. The crew should be evacuated from any area of risk. All possible sources of ignition should be eliminated and non-essential air intakes shut down to prevent intake of vapour into accommodation and engine spaces.
If unavoidable work has to be carried out within risk areas, the involved persons have to wear protective closing and breathing apparatus.

3.3 Priority Actions

Top priority shall in all cases of casualty be put on the safety of the persons onboard and to take actions to prevent escalation of the incident.
Immediate consideration should be given to protective measures against fire, explosions and personnel exposure to toxic vapour.
Detailed information about the damage sustained to the ship and its containment system has to be obtained. On the basis of the information the Master can decide next actions for the protection of lives, the ship, the cargo and the environment.
The Master should take into account the following when he is determining whether salvage assistance will be needed or not:

- Nearest land or hazard to navigation
- Vessel's set and drift
- Estimated time of casualty repair
- Determination of nearest capable assistance and its response time.

In case of necessary movement of cargo within the ship careful consideration is to be given to hull strength and stability.
Plans/tables about the location and specification of the current cargo as well as bunkers and ballast have to be readily available.

3.4 Mitigating Activities

If safety of both the ship and the personnel has been addressed the Master shall care for following issues:

- Assessment of the situation and monitoring of all activities as documented evidence
- Care for further protection of the personnel, use of protection gear, assessment of further risk for health and safety
- Containment of the spilled material by absorbtion and safe disposal within leakproof containers of all used material onboard until proper delivery ashore, with due consideration to possible fire risk.
- Decontamination of personnel after finishing the cleanup process
- Isolating procedure

3.5 Transfer of Bunker/ Lightening

If the ship has sustained extensive structural damage, it may be necessary to transfer all or part of the cargo/ bunker to another ship; however, this section refers to bunker transfer procedures only.
In Ship-to-Ship-transfer operations involving a specialized service ship, the Master of that ship will normally be in overall charge.
In the case of non-specialized ships the Master or other person in overall charge of the operation should be mutually agreed and clearly established by the Masters concerned prior to the start of operations.
The actual bunker transfer should be carried out in accordance with the requirements of the receiving ship.
In all cases each Master remains responsible for the safety of his own ship, its crew, cargo/ bunker and equipment and should not permit their safety to be jeopardized by the action of the other Master, his owner, regulatory officials or others.

The Ship-to-Ship-transfer operations should be coordinated with the appropriate responsible local Authority.

When selecting the area of operation the Master(s) should consider the following points

- The need to notify and obtain the agreement of any responsible authority
- The destinations of the ships concerned
- The shelter provided, particularly from sea and swell
- The sea area and depth of water, which should be sufficent for manoeuvring during mooring, unmooring and transfer operations and allow a safe anchorage if operations have to be undertaken at anchor
- The traffic density
- The weather conditions and the weather forecasts

Further, before commencing Ship-to-Ship transfer operations each ship should carry out, as far as possible, appropriate preparations like

- Pre-mooring preparations of the ships
- Positioning of fenders if such equipment is available on board
- Mooring equipment arrangements
- Checking the communication channels between the two ships

In additions to the general principles of Ship-to-Ship operations as aforementioned the Master should take note of supplemented instructions issued by the company.

Those supplemented information is located in:

Cargo Office

3.6 Damage Stability and Hull Stress Calculation

In case of any emergency the master has to contact the manager of the vessel, for details please refer to Annex 4 of this SOPEP.

Great care in casualty response must be taken to consider stability and strength when taking actions to mitigate the spillage of oil or to free the ship if aground.

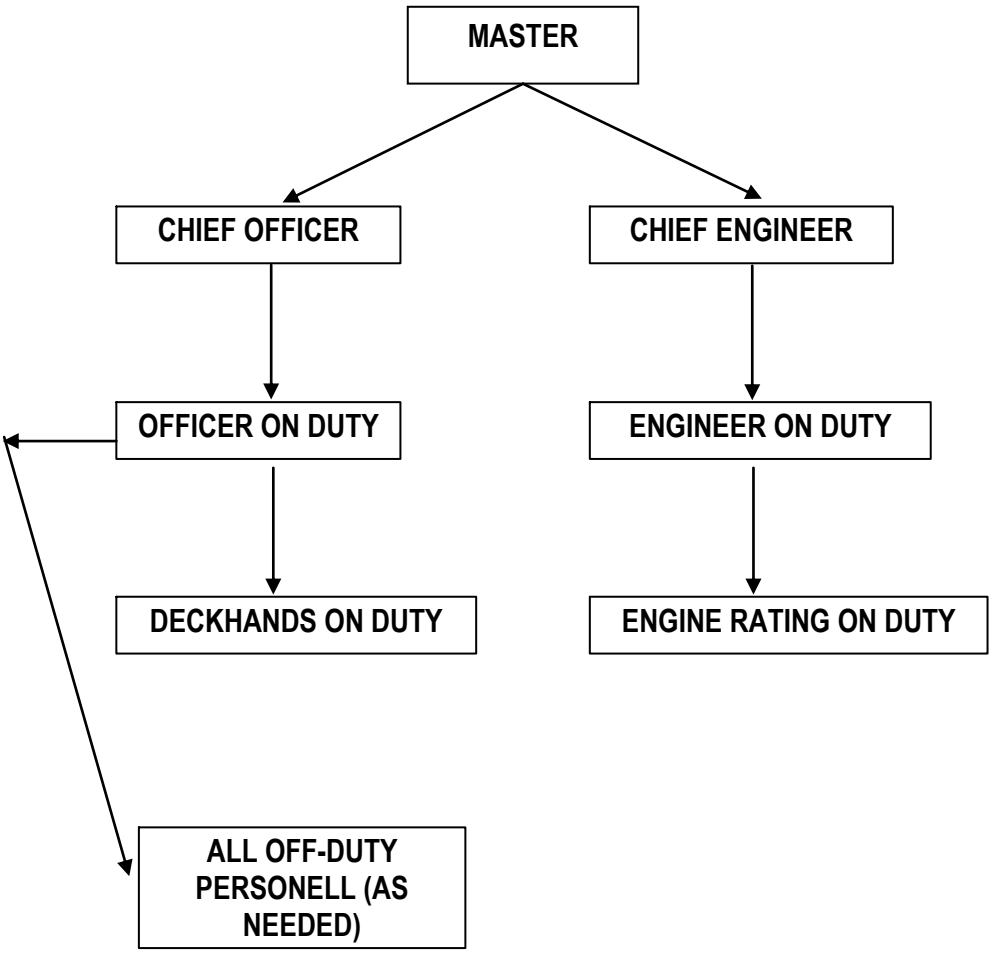
Internal transfers should be undertaken only when a full appreciation of the likely impact on the ship's overall strength and stability. When the damage sustained is extensive, the impact of internal transfers on stress and stability may be impossible for the ship's crew to assess.

The master of the vessel should then make contact with the ship manager's technical department, in order that information can be provided so that damage stability and damage longitudinal strength assessment can be made. The manager's technical department are available 24 hours a day.

For further details see Annex 4.

Current cargo, bunker and ballast information including quantities and specifications are available in the logbook.

3.7 General Responsibilities of the Master and designated Officers/ Crew Members



3.7.1 General Responsibilities

The following crew members are in charge in the event of an oil spill – actual or probable – to bring the accident under control, limit outflows, organize onboard clean-up procedures and determine the additional manpower needed. Arrangements shall be made that in case of sudden unavailability of superior ranks other available ranks are prepared to take over.

Ranking	Duties
Master	Overall in charge of operation on board dealing with an oil spill; responsible for all steps to be taken especially for the two main categories – reporting and action. Keeps log off all events and progress of actions.
Chief Officer	In charge of deck operation; Should keep the Master informed and updated on the situation and the results from action taken to stop or minimize an oil outflow.
Chief Engineer	In charge of bunker operation; Should keep the Master informed and updated on the situation and the results from action taken to limit oil outflow.
Deck Duty Officer	Tank overflow (bunkering): Alert and inform Chief Officer/ Chief Engineer on situation; Mobilize off duty crew as necessary
Duty Engineer	Assist Chief Engineer; Prepare for fire fighting; Ensure sufficient power and water to deck; Organize on board clean-up equipment
Duty Rating(s)	If an oil leakage is detected alert immediately by all possible means; Inform Officers(s) on Duty immediately; Position sorbent material/ clean-up material to prevent any escaped oil from reaching the railing; Commence clean-up by using, as far as available on board, the clean up equipment

SECTION 4: NATIONAL AND LOCAL CO-ORDINATION

Quick efficient co-ordination between the ship and Coastal States or other parties involved becomes vital in mitigating the effects of an oil pollution incident.

As the identities and roles of various national and local Authorities involved vary widely from state to state and even from port to port, the Master should take note of these particularities, as far as possible. In this context the Master should call upon the owners representatives in the state/ port of question to receive the relevant information.

Prior to undertaking mitigation actions – especially in cases of an actual discharge of oil due to casualties in the territorial waters of a Coastal State – the Master should contact the Coastal State for authorization of his action.

The Master should co-ordinate all his activities with the Coastal State.

The Master should call the Coastal State for allowance to use chemical agents for response to oil pollution on the sea. Without authorization of the Authorities of the appropriate Coastal State no chemical agents should be used.

Where no responsibility for discharge response by a Coastal State is noticed the Master should take all the necessary steps as deemed appropriate to minimize the escape of oil.

With respect of the accident happened the Master should take measures as stated in Section 2 and Section 3 of this Plan.

Appendices:

Initial Notification	(app. 1)
Coastal State Contacts (Focal Points)	(app. 2)
Port contacts	(app. 3)
Ship interest contacts	(app. 4)
Ship's Plans and Drawings	(app. 5)

- Layout of General Arrangement Plan
- Layout of Ballast and Bunker Tanks
- Drawings of fuel oil pipelines

SECTION 5 NON-MANDATORY INFORMATION (VOLUNTARY PART)

In addition to the mandatory provisions required by Reg. 37, Annex I, MARPOL 73/ 78 which are mentioned in Sections 1 to 4 of this Plan, local requirements, insurance company or owner/ operator policies etc. may dictate the provisions of additional guidance.

Such additional information material, including diagrams and / or drawings, reference material etc., may be of help for the Master when responding to an oil pollution incident or an emergency situation as well as may be required by local Authorities in ports visited by the individual ship.

APPENDICES

List of contacts
and
Additional Information Material

APPENDIX 1 INITIAL NOTIFICATION

The following format provides an example as to how Initial Notification information shall be presented:

A	MV „X„, Call Sign D..., German Flag
B	01 12 36
C	2528N 05740E
E	179
F	186
L	Bound Singapore from Muscat
M	Bahrain Radio 500 KHz, VHF 16, INMARSAT No. 888 888
N	As required
P	650 TEU/ NO IMDG CARGO/ BUNKERS 580 IFO/ 75 MDO
Q	Collision with cargo ship ..., HFO-Service tank starboard breached, no fire and all essential shipboard systems operational
R	Quantitiy of fuel oil lost from breached tank about 10 tonnes; tank now empty Slick moving SE away from land and out of Gulf of Oman
S	Weather fine, wind NNW, 3 Bft, sea state slight to moderate, no swell
T	Owner Blue Horizon Co., Vorsetzen 12, 20459 Hamburg, Tel. +40 123 45, Telex 876 54 Fax +40 876 543
U	Length 169 m, breadth 25 m, tonnage 23.000 tdw, type container ship
X	No personnel injuries sustained; no clean-up operations possible from ship; Shipsafe P and I Club advised; local correspondent is Miller on Tel. Dubai 54 444. Proceding to Dubai for survey/ repairs.

MASTER

Blank Form:

SHIPBOARD OIL POLLUTION EMERGENCY PLAN

SAMPLE FORMAT FOR INITIAL NOTIFICATION

A (SHIPS NAME; CALL SIGN; FLAG)

B(DATE AND TIME OF EVENT; UTC)

D	D	H	H	M	M

C (POSITION; LAT; LONG) OR D (BEARING; DISTANCE FROM LANDMARK)

				N	**S**					
d	d	m	m				d	d	d	N miles
					E	**W**				
d	d	d	m	m						

E (COURSE)

d	d	d	kn	kn	1/ 10

L (INTENDED TRACK)

M (RADIO STATION(S) GUARDED)

N (DATE AND TIME OF NEXT REPORT; UTC)

D	D	H	H	M	M

P (TYPE AND QUANTITY OF CARGO/ BUNKERS ON BOARD)

Q (BRIEF DETAILS OF DEFECTS/ DEFICIENCIES/ DAMAGE)

R (BRIEF DETAILS OF POLLUTION; INCLUDING ESTIMATE OF QUANTITY LOST)

S (CONTACT DETAILS OF WEATHER AND SEA CONDITIONS) Wind: Direction / Speed [ ][ ][ ] (Beaufort) SWELL: Direction / Height [ ][ ][ ] (m)
T (CONTACT DETAILS OF SHIP´S OWNER/ OPERATOR/ AGENT)
U (SHIP SIZE AND TYPE)
X (ADDITIONAL INFORMATION)

Footnote: The alphabetical reference letters in the above format are from „General principles for ship reporting systems and ship reporting requirements, including guidelines for reporting incidents involving dangerous goods, harmful substances and/ or marine pollutants“ adopted by the International Maritime Organization by resolution A. 851 (20). The letters do not follow the complete alphabetical sequence as certain letters are used to designate information required for other standard reporting formats, e.g., those used to transmit route information.

APPENDIX 2 COASTAL STATE CONTACTS (FOCAL POINTS)

Note to Plan writers:

The current edition of the „List of the National Operational Contact Points„ issued by IMO has to be added in this Appendix. The present version can be downloaded and printed from the Internet under following address:

http://www.imo.org >>> National Contacts >>> MEPC.6/Circ. Xx

APPENDIX 3 PORT CONTACTS

The following table provides an example as to how port contacts information could be presented:

Name of Port Contact	Address	Means of contact	Remarks
Port Authority (Harbour Master etc.)	.....	Phone... Fax... VHF-Channel...	...
Terminal Officials	...	...	...
Company´s Local Agent	...	...	...
...	...	...	...
	...	...	...
	...	...	...
	...	...	...

APPENDIX 4 SHIP INTEREST CONTACTS

The following table provides an example as to how ship interest contact information could be presented:

(a) Owner/ operator contacts

Name of institution/ person to be contacted	Address	Means of contact	Remarks
Owner/ operator		Phone... Fax... Telex... INMARSAT_ Telex... INMARSAT_ Fax...	
...	...	...	...
...	...	...	...

(b) Other ship interest contacts

Name of institution/ person to be contacted	Address	Means of contact	Remarks
Charterer	...	...	...
Local agent	...	...	...
P & I Club and correspondents	...	...	...
...	...	...	...
...	...	...	...

APPENDIX 5 SHIP´S PLANS AND DRAWINGS

1. General Arrangement Plan
2. Tank Plan
3. Fuel Oil Piping Diagram