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Title:

ABAN PEARL SHIPBOARD OIL POLLUTION EMERGENCY PLAN

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	ABAN PEARL – SOPEP - 001	SECTION:	Content
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TABLE OF CONTENTS			

SECTION 1.....PREAMBLE

- 1.1 Statement of Purpose
- 1.2 Regulation Requiring Conformance
- 1.3 Principles and Reporting Requirements under IMO Resolution A 851 (20)

SECTION 2.....REPORTING REQUIREMENTS

- 2.1 When to Report
- 2.2 Procedure for Making Report
- 2.3 Contact Procedures

SECTION 3.....CONTROL OF DISCHARGE

- 3.1 Introduction
- 3.2 Control of Discharge of Operational Spill
- 3.3 Discharge Resulting from Drilling and Related Activities
- 3.4 Prevention and Control of Pollution from Major Accident
- 3.5 Discharge Resulting from Casualties
- 3.6 Lightening
- 3.7 Priority Actions
- 3.8 Mitigating Activities
- 3.9 Stability and Stress Considerations

SECTION 4..... ORGANISATION OF RESPONSE

- 4.1 Guidance Requirements
- 4.2 General
- 4.3 Use of Dispersants
- 4.4 Organisation of Response

SECTION 5..... ADDITIONAL INFORMATION

- 5.1 Plan Review Procedure
- 5.2 Training and Drill Procedures
- 5.3 Record Keeping Procedures
- 5.4 Company Public Affairs Policy

SECTION 6..... APPENDICES

- 6.1 Appendix 1 - List of Coastal State Contacts
- 6.2 Appendix 2 - List of Port Contacts
- 6.3 Appendix 3 - List of Ship Interest Contacts
- 6.4 Appendix 4 - Essential Personnel
- 6.5 Appendix 5 - Guidance for Marine Operations
- 6.6 Appendix 6 – Stability Information
- 6.7 Appendix 7 - Local Information Form
- 6.8 Appendix 8 – IMO resolution A 851 (20).


SECTION 7.....DRAWINGS AND DIAGRAMS

- 7.1 Drawings and Diagrams

SECTION 8..... ANNEX

- 8.1 Reporting of Incidents Involving Harmful Substances under MARPOL 73/78


REVISION NO:	0.0	FILE CODE	PAGE	OF
REVISION DATE:	1 st Dec 2008	Aban – Pearl -001	2	96

	ABAN PEARL – SOPEP - 001	SECTION:	Content
		SUBSECTION:	na
TABLE OF CONTENTS			

- 8.2 Article 8 of the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto
- 8.3 Annex: Amendments to the Annex of the Protocol of 1978 Relating to the International Convention for the Prevention of Pollution from Ships, 1973
- 8.4 Annex: General Principles for Ship Reporting Systems and Ship Reporting Requirements, including Guidelines for Reporting Incidents involving Dangerous Goods, Harmful Substances and/or Marine Pollutants
- 8.5 Appendix

SECTION 9..... DOCUMENT ADMINISTRATION


REVISION NO:	0.0	FILE CODE	PAGE	OF
REVISION DATE:	1 st Dec 2008	Aban – Pearl -001	3	96

	ABAN PEARL – SOPEP - 001	SECTION:	01
		SUBSECTION:	na
PREAMBLE			

CONTENTS

1.1	Statement of Purpose.....	5
1.2	Regulation Requiring Conformance.....	5
1.3	Principles and Reporting Requirements under IMO Resolution A 851 (20).....	6
1.3.1	General Principles	6
1.3.2	Guidelines for Reporting Incidents Involving Dangerous Goods	8
1.3.3	Guidelines for Reporting Incidents Involving Harmful Substances and/or Marine Pollutants.	8

REVISION NO:	0.0	FILE CODE	PAGE	OF
REVISION DATE:	1 st Dec 2008	Aban – Pearl -001	4	96

	ABAN PEARL – SOPEP - 001	SECTION:	01
		SUBSECTION:	na
PREAMBLE			

1.1 Statement of Purpose

This 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 thereto.

The purpose of the plan is to provide guidance to the master and officers on board the vessel with respect to the steps to be taken when a pollution incident has occurred or is likely to occur.

The plan contains all the information and operational instructions required by the Guidelines. The appendices contain names, telephone, fax, telex numbers, etc. of all contacts referenced in the plan, as well as other reference material.

The plan has been approved by the Administration and, except as provided below, no alteration or revision shall be made to any part of it without the prior approval of the Administration.

Changes to Section 5 and the appendices will not be required to be approved by the Administration. The owners, clients and managers should maintain the appendices up to date.

1.2 Regulation Requiring Conformance


The regulation requiring the provision of a shipboard oil pollution emergency plan is the amendment to Annex 1 of Marpol 73/78, which states the following:

"Chapter V - Prevention of Pollution arising from an Oil Pollution Incident"

Regulation 37 Shipboard Oil Pollution Emergency Plan.

1. The new regulation 37(4) of the revised MARPOL annex 1 specifies that all new and Existing oil tankers and Barges of 5000 tons DW or more shall have prompt access to computerised, shore-based damaged stability and residual structural strength calculation programs by 1st January 2007.
2. Such a plan shall be in accordance with Guidelines developed by the Organisation and written in the working language of the master and officers. This plan shall consist at least of:
 - a) The procedure to be followed by the master or other persons having charge of the ship to report an oil pollution incident, as required in article 8 and Protocol 1 of the present Convention, based on the Guidelines developed by the Organisation.
 - b) The list of authorities or persons to be contacted in the event of an oil pollution incident.
 - c) A detailed description of the action to be taken immediately by the persons on board to reduce or control the discharge of oil following the incident, and

REVISION NO:	0.0	FILE CODE	PAGE	OF
REVISION DATE:	1 st Dec 2008	Aban – Pearl -001	5	96

	ABAN PEARL – SOPEP - 001	SECTION:	01
		SUBSECTION:	na
PREAMBLE			

- d) The procedures and point of contact on the ship for co-ordinating the shipboard action with national and local authorities in combating the pollution.

1.3 Principles and Reporting Requirements under IMO Resolution A 851 (20)

The following is an extract from "Provisions Concerning the Reporting of Incidents Involving Harmful Substances" (IMO-516E), and ADOPTS the amendments to the 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 text of which is set out in the Annex to this resolution. The following is an extract from "Provisions Concerning the Reporting of Incidents Involving Harmful Substances" (IMO-516E / pages 6, 7 & 8), and consists of the Appendix to the above Resolution. A copy of the booklet is attached for reference (See Section 6 – Appendix 8).


Ship reporting systems and reporting requirements are used to provide, gather or exchange information through radio reports. The information is used to provide data for many purposes including search and rescue, vessel traffic services, weather forecasting and the prevention of marine pollution. Ship reporting systems and reporting requirements should, as far as practicable, comply with the following principles:

1.3.1 General Principles

Ship reporting systems and reporting requirements are used to provide, gather or exchange information through radio reports. The information is used to provide data for many purposes including search and rescue, vessel traffic services, weather forecasting and the prevention of marine pollution. Ship reporting systems and reporting requirements should as far as practicable comply with the following principles:


1. Reports should contain only information essential to achieve the objectives of the system.
2. Reports should be simple and use the standard international ship reporting format and procedures; where language difficulties may exist, the language used should include English, using where possible the Standard Marine Navigational Vocabulary, or alternatively the International Code of Signals. The standard reporting format and procedures to be used are given in the appendix to this Annex (Refer to the copy of booklet attached).
3. The number of reports shall be kept to a minimum.
4. No charge shall be made for the communication of reports.
5. Safety or pollution related reports should be made without delay; however, the time and place of making non-urgent reports should be sufficiently flexible to avoid interference with essential navigational duties.

REVISION NO:	0.0	FILE CODE	PAGE	OF
REVISION DATE:	1 st Dec 2008	Aban – Pearl -001	6	96

	ABAN PEARL – SOPEP - 001	SECTION:	01
		SUBSECTION:	na
PREAMBLE			

6. Information obtained from the system should be made available to other systems when required for distress, safety and pollution purposes.
7. Basic information (ship's particulars, on-board facilities and equipment etc.) should be reported once, be retained in the system and be updated by the ship when changes occur in the basic information reported.
8. The purpose of the system should be clearly defined.
9. Governments establishing a ship reporting system should notify mariners of full details of the requirements to be met and the procedures to be followed. Details of types of ships and areas of applicability of times and geographical positions for submitting reports, of shore establishments responsible for operation of the system and of services provided should be clearly specified. Chartlets depicting boundaries of the system and providing other necessary information should be made available to mariners.
10. The establishment and operation of a ship reporting system should take into account:
 - (i) International as well as national responsibilities and requirements.
 - (ii) The cost to ship operators and responsible authorities.
 - (iii) Navigational hazards.
 - (iv) Existing and proposed aids to safety.
 - (v) The need for early and continuing consultation with interested parties including a sufficient period to allow for trial, familiarisation and assessment to ensure satisfactory operation and to allow necessary changes to be made to the system.
11. Governments should ensure that shore establishments responsible for operation of the system are manned by properly trained persons.
12. Governments should consider the interrelationship between ship reporting systems and other systems.
13. Ship reporting systems should preferably use a single operating radio frequency; where additional frequencies are necessary; the number of frequencies should be restricted to the minimum required for effective operation of the system.
14. Information provided by the system to ships should be restricted to that necessary for the proper operation of the system and for safety.
15. Ship reporting systems and requirements should provide for special reports from ships concerning defects or deficiencies with respect to their hull, machinery, equipment or manning, or concerning other limitations, which could adversely affect navigation, and for special reports concerning incidents of actual or probable marine pollution.

REVISION NO:	0.0	FILE CODE	PAGE	OF
REVISION DATE:	1 st Dec 2008	Aban – Pearl -001	7	96

	ABAN PEARL – SOPEP - 001	SECTION:	01
		SUBSECTION:	na
PREAMBLE			

16. Governments should issue instructions to their shore establishments responsible for the operation of ship reporting systems to ensure that any reports involving pollution, actual or probable, are relayed without delay to the officer or agency nominated to receive and process such reports, and to ensure that such an officer or agency relays these reports without delay to the flag State of the ship involved and to any other State which may be affected.

17. States which are affected or likely to be affected by pollution incidents and may require information relevant to the incident should take into account the circumstances in which the Master is placed, and should endeavour to limit their requests for additional information.

18. The appendix to this Annex does not apply to danger messages referred to under V/2 of the 1974 SOLAS Convention, as amended. The present practice of transmitting such messages should remain unchanged.

1.3.2 Guidelines for Reporting Incidents Involving Dangerous Goods

1. The intent of these Guidelines and those contained in the appendix is to enable coastal states and other interested parties to be informed without delay when any incident occurs involving the loss, or likely loss, overboard of packaged dangerous goods into the sea.

2. Reports should be transmitted to the nearest coastal state. When the ship is within or near an area for which a ship reporting system has been established, reports should be transmitted to the designated shore station of that system.

1.3.3 Guidelines for Reporting Incidents Involving Harmful Substances and/or Marine Pollutants


1. The intent of these Guidelines and those contained in the appendix is to enable coastal states and other interested parties to be informed without delay of any incident giving rise to pollution or threat of pollution, of the marine environment, as well as of assistance and salvage measures, so that appropriate action may be taken.

2. In accordance with article V (1) of Protocol 1 of Marpol 73/78, a report shall be made to the nearest coastal State.


3. Whenever a ship is engaged in or requested to engage in an operation to render assistance to or undertake salvage of a ship involved in an incident referred to in subparagraph 1(a) or (b) of article II of Protocol I of Marpol 73.78, as amended, the master of the former ship should report, without delay, the particulars of the action taken or planned. The coastal States should also be kept informed of developments.

4. The probability of a discharge resulting from damage to the ship or its equipment is a reason for making a report.

REVISION NO:	0.0	FILE CODE	PAGE	OF
REVISION DATE:	1 st Dec 2008	Aban – Pearl -001	8	96


	ABAN PEARL – SOPEP - 001	SECTION:	01
		SUBSECTION:	na
PREAMBLE			

REVISION NO:	0.0	FILE CODE	PAGE	OF
REVISION DATE:	1 st Dec 2008	Aban – Pearl -001	9	96

	ABAN PEARL – SOPEP - 001	SECTION:	01
		SUBSECTION:	na
PREAMBLE			

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REVISION NO:	0.0	FILE CODE	PAGE	OF
REVISION DATE:	1 st Dec 2008	Aban – Pearl -001	10	96

	ABAN PEARL – SOPEP - 001	SECTION:	02
		SUBSECTION:	na
REPORTING REQUIREMENTS			

CONTENTS

2.1	WHEN TO REPORT.....	12
2.1.1	Reporting Actual Discharge	12
2.1.2	Reporting Probable Discharge	13
2.2	PROCEDURE FOR MAKING REPORT	13
2.2.1	General	14
2.2.2	Reporting Procedures	14
2.2.3	Report Form	15
2.3	CONTACT PROCEDURES	18
2.3.1	General	18
2.3.2	Reporting Procedure - Installation on Location	8
2.3.3	Reporting Procedure - Installation in Transit	8
2.3.4	Coastal State Contacts.....	9
2.3.5	Port Contacts.....	10
2.3.6	Ship Interest Contact List.....	10

REVISION NO:	0.0	FILE CODE	PAGE	OF
REVISION DATE:	1st Dec 2008	Aban – Pearl - 001	11	96

	ABAN PEARL – SOPEP - 001	SECTION:	02
		SUBSECTION:	na
REPORTING REQUIREMENTS			

When to Report

Article 8 and Protocol I of the Convention require that the nearest coastal state be notified of actual or probable discharges. The intent of this requirement is to ensure that coastal States are informed without delay, of any incident giving rise to pollution, or threat of pollution, of the marine environment, as well as of assistance and salvage measures, so that appropriate action may be taken.

Reporting Actual Discharge

A report to the nearest Coastal State is required when-ever there is:

A discharge of oil, resulting from damage to the ship or it's equipment, or for the purpose of securing the safety of a ship or saving life at sea, or

A discharge during the operation of the ship of oil in excess of the quantity or instantaneous rate permitted under the present Convention.

The regulations state that possible incidents resulting in the actual discharge of oil include the following:

- i) Operational Spills
- ii) Pipe leakage.
- iii) Tank overflow
- iv) Hull leakage
- v) Grounding
- vi) Fire/explosion
- vii) Collision
- viii) Hull failure
- ix) Excessive list.


In addition other discharges which have been identified but which are specific to MODUs include:

- i) Operational Spills of Oil Based Mud
- ii) Well testing equipment failure
- iii) Blowout.
- vi) Collision between vessels within 500 m zone resulting in oil discharge.
- v) Collision of vessel with Installation resulting in oil discharge from vessel only.

There is no judgement required for the initiation of the report under these circumstances. The incident occurs and the pollution is therefore visible, hence the report should be made as soon as reasonably practicable.

It is recognised that the pollution event may be a part of a larger incident, which may possibly threaten life, and it is therefore accepted that the report will be judged as to priority by the OIM/MIC (Man In Charge).

REVISION NO:	0.0	FILE CODE	PAGE	OF
REVISION DATE:	1st Dec 2008	Aban – Pearl - 001	12	96

	ABAN PEARL – SOPEP - 001	SECTION:	02
		SUBSECTION:	na
REPORTING REQUIREMENTS			

Reporting Probable Discharge

Article 8 and Protocol I of the Convention also requires that the nearest coastal State be notified of "Probable Discharge" i.e., circumstances where, in the judgement of the vessel master or man in charge, discharge is likely to occur.

The guidance identifies the following circumstances, which may result in the requirement to report a probable discharge. Some of these circumstances are not applicable to offshore installations.

- i) Damage, failure or breakdown that affects the safety of the vessel such as:
 - a. Collision
 - b. Grounding
 - c. Fire
 - d. Explosion
 - e. Structural failure
 - f. Flooding
 - g. Cargo shifting
- ii) Failure or breakdown of machinery or equipment which results in impairment of the safety of navigation, such as:
 - a. Failure or breakdown of steering gear
 - b. Propulsion failure.
 - c. Electrical generating system failure.
 - d. Navigation aid failure.
- iii) In addition to the above the following are applicable to MODUs only:
 - a. Identified Well Control problems.
 - b. Loss of tow while in transit.
 - c. Collision between vessels in 500 m zone.
 - d. Collision of vessel with Installation resulting in damage to vessel only.

In judging whether a report should be made the Guidance specifies the following factors which, as a minimum should be taken into account:


- i) The nature of the damage, failure or breakdown of vessel, machinery or equipment.
- ii) Location and proximity to land or other navigational hazards.
- iii) Weather, tide, current and sea state.
- iv) Traffic density.

In the case of MODUs the majority of these factors apply only to transit situations, however in addition OIMs should consider:

- v) The nature of well control problems.
- vi) The nature of damage to a vessel that has collided with the Installation.
- vii) The nature of damage, which has occurred to vessels colliding within the 500 m zone.

Procedure for Making Report

REVISION NO:	0.0	FILE CODE	PAGE	OF
REVISION DATE:	1st Dec 2008	Aban – Pearl - 001	13	96

	ABAN PEARL – SOPEP - 001	SECTION:	02
		SUBSECTION:	na
REPORTING REQUIREMENTS			

General

There follows the general reporting procedures as required by IMO Resolution A 851 (20). In addition Section 2.2.3 of this document contains a Report Form for marine pollution whose general format is taken from the Guidelines, and which has been tailored specifically for application to MODUs.

The Report form uses the appropriate designations from the Standard Reporting Format.

Reporting Procedures

The Reporting Procedures, the Standard reporting Format and the Guidelines for Detailed Reporting Requirements are contained in the Appendix to IMO Publication IMO-516E "Reporting of Incidents Involving Harmful Substances".


REVISION NO:	0.0	FILE CODE	PAGE	OF
REVISION DATE:	1st Dec 2008	Aban – Pearl - 001	14	96

aban	ABAN PEARL – SOPEP - 001	SECTION:	02
		SUBSECTION:	na
REPORTING REQUIREMENTS			

Report Form


SHIPBOARD OIL POLLUTION EMERGENCY PLAN - REPORT FORM Sheet 1													
AA. VESSEL NAME													
CALL SIGN	FLAG												
BB. DATE AND TIME OF EVENT UTC:													
	<table border="0"> <tr> <td> </td><td> </td><td> </td><td> </td><td> </td><td> </td> </tr> <tr> <td>D</td><td>D</td><td>H</td><td>H</td><td>M</td><td>M</td> </tr> </table>							D	D	H	H	M	M
D	D	H	H	M	M								
CC. POSITION	OR												
LAT N S	DD. BEARING,												
d d m m	d d d												
LONG E W	DIST – LANDMARK												
d d m m	N miles												
EE. COURSE	FF. SPEED												
d. d. d.	kn. kn. 1/10												
LL. INTENDED TRACK													
MM. RADIO STATION (S) GUARDED													
NN. DATE AND TIME NEXT REPORT :													
UTC	<table border="0"> <tr> <td> </td><td> </td><td> </td><td> </td><td> </td><td> </td> </tr> <tr> <td>D</td><td>D</td><td>H</td><td>H</td><td>M</td><td>M</td> </tr> </table>							D	D	H	H	M	M
D	D	H	H	M	M								
PP. TYPE AND QUANTITY OF BUNKERS ON BOARD:													

REVISION NO:	0.0	FILE CODE	PAGE	OF
REVISION DATE:	1st Dec 2008	Aban – Pearl - 001	15	96

	ABAN PEARL – SOPEP - 001	SECTION:	02
		SUBSECTION:	na
REPORTING REQUIREMENTS			


SHIPBOARD OIL POLLUTION EMERGENCY PLAN - REPORT FORM Sheet 2			
QQ. BRIEF DETAILS OF DEFECTS, DEFICIENCIES, DAMAGE.			
RR. BRIEF DETAILS OF POLLUTION INC. ESTIMATE OF QUANTITY LOST			
SS. BRIEF DETAILS OF WEATHER AND SEA CONDITIONS			
WIND	DIRECTION	____ ____ ____	SPEED Beaufort
SWELL	DIRECTION	____ ____ ____	HEIGHT m
TT. CONTACT DETAILS OF VESSEL OWNER/OPERATOR/AGENT			
UU. VESSEL SIZE AND TYPE			
XX. ADDITIONAL INFORMATION			
VESSEL ACTIVITY IN TRANSIT:		UNDER TOW TOW LOST	
ON LOCATION		POSITIONING OPERATING SURVIVAL	

REVISION NO:	0.0	FILE CODE	PAGE	OF
REVISION DATE:	1st Dec 2008	Aban – Pearl - 001	16	96

	ABAN PEARL – SOPEP - 001	SECTION:	02
		SUBSECTION:	na
REPORTING REQUIREMENTS			

SHIPBOARD OIL POLLUTION EMERGENCY PLAN - REPORT FORM Sheet 3	
XX. ADDITIONAL INFORMATION	
DETAILS OF INCIDENT	
NEED FOR OUTSIDE ASSISTANCE	
ACTIONS BEING TAKEN	
CREW NUMBER ON BOARD	DOWNMANNING REQUESTED NUMBER TO BE EVACUATED NUMBER TO REMAIN
CASUALTIES	MISSING DEATHS MINOR INJURIES MODERATE INJURIES SERIOUS INJURIES
P&I CLUB	NAME
	ADDRESS
TELEPHONE:	FAX:
	TELEX:
LOCAL CORRESPONDENT: ADDRESS:	
TELEPHONE:	FAX:
	TELEX:

REVISION NO:	0.0	FILE CODE	PAGE	OF
REVISION DATE:	1st Dec 2008	Aban – Pearl - 001	17	96

	ABAN PEARL – SOPEP - 001	SECTION:	02
		SUBSECTION:	na
REPORTING REQUIREMENTS			

Contact Procedures

General

Contact procedures will vary depending on the event causing the pollution or potential for pollution and the location of the Installation. In the event of a sudden major catastrophe or in an escalating incident, a pollution report will be initiated as part of the emergency communication between the Rig Manager and the Installation.

Initial contact will be made with the Installation management. The established means of communication, likely to be either mobile telephone or by satellite.

In the event of failure for any reason of this system then communication should be established, if not already in place, with the nearest Coast Radio Station.

In addition it is virtually certain that pollution incidents and all resulting actions will be components of the formal procedures agreed between the Installation owners and the Operators. It is possible that in some parts of the world reporting will be undertaken by the Operator, who will be furnished with the information by his on board representative. This probability is accepted in all parts of this document, but it should be emphasised that responsibility is not removed from the OIM, and it is necessary for him to follow the courses of action, which are required of him, and to monitor any actions taken by the Operator or his representative.

Reporting of possible or actual pollution resulting from a major accident will be carried out either by the Operator or by the Aban Base management on behalf of the OIM.

In some parts of the world there are specific reporting responsibilities placed on the OIM's of Offshore Installations (as distinct from ships) and where these are known they are included in the guidance which follows.

Reporting Procedure – Installation on Location

It is company policy that the Rig Manager assigned to the Installation will be based ashore in the Coastal State within whose jurisdiction the Installation is operating. These Managers remain constantly on call by means of mobile telephones, radio pagers or contact numbers and are, as a consequence able to receive reports of pollution incidents at any time.


The Rig Manager will carry, as part of his portfolio of rig related documentation, a copy of the Shipboard Oil Pollution Emergency Plan.

It will be part of the Rig Manager's assignment on arrival at a new base operation to ascertain the reporting structure for pollution incidents for that state and to complete the form, which can be found in Section 2.2.3 of this document.

In the event of a pollution incident the Installation is instructed to contact the Rig manager who will then carry out the reporting requirements.

Reporting Procedure - Installation in Transit

REVISION NO:	0.0	FILE CODE	PAGE	OF
REVISION DATE:	1st Dec 2008	Aban – Pearl - 001	18	96

	ABAN PEARL – SOPEP - 001	SECTION:	02
		SUBSECTION:	na
REPORTING REQUIREMENTS			

In the event of long ocean transits the owners may well exercise the option of undertaking a "Dry Tow", i.e. having the Installation transported on the deck of a heavy lift vessel. In these cases responsibility for pollution reporting becomes that of the vessel.

Where wet tows of short duration take place the reporting procedures will be similar to those used for location, since the base management at the coastal state is most likely to remain in place.

For wet tows of longer duration there are a number of possible options, which must be considered. The first option remains to contact the base office if it is in place. This will be the case for the period immediately after departure from the last location and immediately prior to the arrival at the new location. In the intervening period the Installation may pass through the jurisdiction of other coastal States.

In these cases the option of contacting the base office by satellite telephone remains, allowing that office to use international telephone links to report the incident to the controlling State, or to contact the nearest coast radio station and to report the incident direct. The option exercised may depend on the level of information available on board the Installation and the degree of sophistication of the Coastal State's communications system.

Coastal State Contacts

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

List of National operational contact points responsible for the receipt, Transmission, and Processing of urgent reports on Incidents involving harmful substances, including oil from ships to coastal states.

Coastal state contacts are contained in the Appendix to IMO Publication IMO-516E "Reporting of Incidents Involving Harmful Substances". Coastal state contacts for the rest of the world are contained in the Appendix to IMO Publication MSC-MEPC. 6/Circ 4. dated 31 March 2008 "National Contact Points for Safety and Pollution Prevention".

The list of National Operational Contact is also available on the internet as follows <http://www.imo.org> (select 'IMO Circulars/Contact points' or 'National Contacts').

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).

Such a list is shown under App. 1

The list as applicable from time to time will be incorporated by the barge master.

2.2.5 Port Contacts

REVISION NO:	0.0	FILE CODE	PAGE	OF
REVISION DATE:	1st Dec 2008	Aban – Pearl - 001	19	96

	ABAN PEARL – SOPEP - 001	SECTION:	02
		SUBSECTION:	na
REPORTING REQUIREMENTS			

For the ship in port, notification of local agencies, combatting teams or clean-up companies will speed up response. If any 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 a spill.
This list should be regularly updated.


The "Port Contact List" is shown in the App. 2

2.2.6 Ship Interest Contacts

For Ship Interest Contacts it is necessary to have information at the OIM's disposal in case of any 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 3

REVISION NO:	0.0	FILE CODE	PAGE	OF
REVISION DATE:	1st Dec 2008	Aban – Pearl - 001	20	96

	ABAN PEARL – SOPEP - 001	SECTION:	02
		SUBSECTION:	na
REPORTING REQUIREMENTS			

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REVISION NO:	0.0	FILE CODE	PAGE	OF
REVISION DATE:	1st Dec 2008	Aban – Pearl - 001	21	96

	ABAN PEARL – SOPEP - 001	SECTION:	03
		SUBSECTION:	na
REPORTING REQUIREMENTS			

CONTENTS

3.1 INTRODUCTION..... 3

3.2 CONTROL OF DISCHARGE OF OPERATIONAL SPILLS.....3

 3.2.1 General 3

 3.2.2 Discharge due to Failure of Flexible Loading Hose 3

 3.2.3 Discharge due to Overfilling Fuel Tanks 4

 3.2.4 Discharge during Transfer to Service Tank or Installation Equipment..... 5

 3.2.5 Discharge due to Pipe Leakage 6

 3.2.6 Discharge due to Hull Leakage..... 7

 3.3 DISCHARGE RESULTING FROM DRILLING AND RELATED ACTIVITIES 9

 3.3.1 Discharge of Oil Based Mud due to Failure of Loading Hose 9

 3.3.2 Discharge due to Well Testing Equipment Failure 9

 3.3.3 Discharge as a Result of Maloperation of the Mud Delivery System 10

 3.4 PREVENTION AND CONTROL OF POLLUTION FROM MAJOR ACCIDENT..... 11

 3.4.1 Discharge due to Blow-out 11

 3.4.1.1 Blow-out Sub Sea / Shallow Gas..... 11

 3.4.1.2 Blow-out with Diverter in use..... 11

 3.4.1.3 Blow-out with BOP in-situ..... 11

 3.5 DISCHARGE RESULTING FROM CASUALITIES 13

 3.5.1 Discharge as a Result of Grounding 13

 3.5.2 Discharge due to Fire/Explosion 13

 3.5.3 Discharge due to Vessels Colliding within 500m Zone 14

 3.5.4 Discharge From Visiting Vessel Subsequent To Collision 14

 3.5.5 Discharge From Passing Vessel Subsequent To Collision 15

 3.5.6 Discharge Hull Failure 17

 3.5.7 Discharge from Rig Fuel Tanks Subsequent to Collision 19

 3.5.8 Discharge Due to Hull Leakage – Transit condition..... 20

 3.5.9 Discharge due to Hull Leakage – Operating condition 22

 3.5.10 Discharge due to Excessive List..... 23


 3.5.11 Containment System Failure..... 23

 3.5.12 Submerged / Foundered..... 24

 3.5.13 Wrecked / Stranded 25


 3.5.14 Hazardous Vapour Release 26

REVISION NO:	0.0	FILE CODE	PAGE	OF
REVISION DATE:	1st Nov 2008	Aban – Pearl - 001	22	96

	ABAN PEARL – SOPEP - 001	SECTION:	03
		SUBSECTION:	na
REPORTING REQUIREMENTS			

3.5.15 Accidental Discharge due to any reason	27
3.6 Transfer of Bunker/Cargo Lightening	27
3.7 Priority	
Action	28
3.8 Mitigating Activities	29
3.8.1 General	29
3.8.2 Assessment and monitoring activities	29
3.8.3 Personnel Protection	
Issues	29
3.8.4 Containment, Isolation and Control	
Strategies	30
3.8.5 De-Contamination of personnel	30
3.8.6 Disposal of removed oil and clean up materials	30
3.9 Stability and Stress Considerations	30
3.9.1 General	31
3.9.2 Longitudinal Stress and Torsional Stress	31
3.9.3 Damage Stability and related Calculations	31
3.9.4 Stability Considerations as a Result of Grounding	31
3.9.5 Stability Considerations as a Result of Collision	31
3.9.6 Stability Considerations as a Result of Hull Failure	32
3.9.7 Responsibilities for Calculation and Data Access	32

REVISION NO:	0.0	FILE CODE	PAGE	OF
REVISION DATE:	1st Nov 2008	Aban – Pearl - 001	23	96

	ABAN PEARL – SOPEP - 001	SECTION:	03
		SUBSECTION:	na
REPORTING REQUIREMENTS			

Control of Discharge

Introduction

The objective of this section is to evaluate the scenarios already identified in section 2 of this document as they apply to the Installation, identify specifically under what circumstances the discharge might take place, and what action and by whom should be taken to mitigate the effects or carry out clean up operations.

3.2 Control of Discharge of Operational spills

3.2.1 General

Operational spills may take place during the loading of fuel from supply vessel to the Installation, transfer from installation to the platform or during the transfer of fuel from the main fuel tanks into the day tanks, or from the unpurified fuel tank into the purified fuel tank. The latter tanks are provided with level switches which automatically stop the relevant pumps so overfilling is unlikely. Spills during loading can occur in two ways, firstly the failure for any reason of the flexible hose between the vessel and the Installation and secondly due to overfilling the tanks.

Deck service lines are also provided to transfer fuel from the day tank to the Cement Unit, the Emergency Generator and the Wireline unit, hence there is a limited possibility of minor discharge during the filling of these tanks.

The Installation fuel is diesel oil and in the event of a discharge into the sea it is probable that no action will be taken, since due to its viscosity the lighter ends will rapidly evaporate and the remainder will be dispersed by wave action. Although the use of dispersants might be considered, on balance they would probably be considered to do more harm than good.

3.2.2 Discharge due to Failure of Flexible Loading Hose


Prevention

Flexible hose failure is prevented by regular inspection of all hoses, pressure testing of applicable hoses prior to any transfer and replacement at appropriate intervals. Additional activities in environmentally sensitive areas may include pressure testing of the hose prior to each operation or at regular intervals.

Preparation

The Barge Supervisor has the duty of supervising loading/discharging operations. At all times during the loading the tank levels are monitored and the tank valves are controlled from the Ballast Control Room. Additionally the vessel Master will also be monitoring the operation from the vessel's control position. The vessel is provided with pump emergency

REVISION NO:	0.0	FILE CODE	PAGE	OF
REVISION DATE:	1st Nov 2008	Aban – Pearl - 001	24	96

	ABAN PEARL – SOPEP - 001	SECTION:	03
		SUBSECTION:	na
REPORTING REQUIREMENTS			

stops. It is essential that good radio contact is established and maintained between the supply vessel and the Deck Supervisor at all times during the operation.

In the event of a hose failure it is most likely that the supply vessel Master or his deputy will notice immediately and stop pumping. However should he not realize what has happened, the Installation's crew member monitoring the operation should make radio contact immediately and instruct the vessel to stop pumping. The crew member will shut down the fuel system.

The hose will then be recovered. Any discharge may be expected to be relatively small and directly into the sea, therefore it is probable that no further action will be practicable, other than for the OIM to make the necessary report as required by the incident. The standby vessel may be sent to monitor the slick.

Any discharge may be expected to be direct to the sea, and no further action other than reporting the event is likely.

Discharge Due To Failure Of Flexible Loading Hose			
	MAIN ACTION	DETAILED ACTION	BY WHOM
ACTIONS	Minimize Spill Spill Response	Cease Pumping Operations Shut Down Fuel System Recover Hose Send SBV To Monitor Slick	OIM/MIC OIM/MIC Barge Supv. Barge Supv. OIM
	MESSAGE TO	CONTENT	BY WHOM
REPORTS	Master/MIC Company Base Office/Rig Manager Client Flag State Authority	Report Leaking Hose Report Leaking Hose Situation Report Situation Report As Required By Legislation	Barge Supv. Barge Supv. OIM Client Rep. OIM/Client Rep.
	RECORDS OF	CONTENT	BY WHOM
RECORDS	All Messages All Actions	Callers And Recipients On And Concerning Rig	R/O Barge Supv.


3.2.3 Discharge due to Overfilling Fuel Tanks

Prevention

Due to the Installation's fuel carrying capacity it is not necessary for it to have onboard anywhere near its maximum bunkers, while operating in the Indian area and that it is normal practice to only fill to 90% capacity, the risk of overflowing the pontoon tanks is small. However if the tanks are to be filled to capacity the filling rate is reduced when they are approaching 80% full, to allow the air to be vented sufficiently and to allow the Barge Supervisor to closely monitor the final stages of filling.

In the event of an overflow the supply vessel will immediately be instructed to stop pumping. The overflow will initially be within the Installation and will be contained within the Installation if at all possible, e.g. by the plugging of scuppers draining to overboard.

REVISION NO:	0.0	FILE CODE	PAGE	OF
REVISION DATE:	1st Nov 2008	Aban – Pearl - 001	25	96

	ABAN PEARL – SOPEP - 001	SECTION:	03
		SUBSECTION:	na
REPORTING REQUIREMENTS			

Any spillage will be cleaned up into the waste oil tank as soon as possible. Any spillage overboard is again likely to be small and no further action will be practicable, apart from the OIM making the necessary Harmful Substances report as required by the incident. Additional activities in environmentally sensitive areas may include reduction in the speed of loading, restricting loading to daylight hours.

Preparation

The Barge Supervisor has the duty of controlling loading operations and for ensuring that constant radio contact is maintained with the vessel. It is expected that either he or a designated deputy will carry out constant monitoring of the loading operation. The vessel is provided with pump emergency stops.

In the event of tank overfilling the Installation crew member monitoring the operation should make radio contact with the master and instruct him to stop pumping. The crew member will shut down the fuel system.

Most of the resulting overflow will be contained by the bunding on the Main Deck and will be drained into the waste water tank. Any remaining pools of oil can then be contained using the portable spill kits which are maintained in designated areas. Any loss over the side will be extremely limited. No further action other than reporting the event is likely.

Discharge Due To Overfilling Fuel Tanks			
	MAIN ACTION	DETAILED ACTION	BY WHOM
ACTIONS	Minimize Spill	Cease Pumping Operations	OIM/MIC
	Spill Response	Shut Down Fuel System Clean Up Onboard Spill	Barge Supv. Barge Supv.
	MESSAGE TO	CONTENT	BY WHOM
REPORTS	OIM/MIC Company Base Office/Rig Manager Client Flag State Authority	Report Overfill Situation Report Situation Report Situation Report As Required By Legislation	Barge Supv. Barge Supv. OIM Client Rep. OIM/Client
	RECORDS OF	CONTENT	BY WHOM
RECORDS	All Messages All Actions	Callers And Recipients On And Concerning Rig	R/O Barge Supv.


3.2.4 Discharge during Transfer to Day Tanks or Installation Equipment

Prevention

Additional activities in environmentally sensitive areas may include restricting loading to daylight hours.

Preparation

REVISION NO:	0.0	FILE CODE	PAGE	OF
REVISION DATE:	1st Nov 2008	Aban – Pearl - 001	26	96

	ABAN PEARL – SOPEP - 001	SECTION:	03
		SUBSECTION:	na
REPORTING REQUIREMENTS			

All transfers of fuel from the hull tanks to the Settling Tank or from the Day Tank to other consumers are controlled from the SCR Room and Ballast Control Room. The Day Tank is fitted with High Level and Low Level alarms to alert the Engine Room personnel that the tank is approaching full. These alarms will activate in the SCR Room and Ballast Control Room. The Day Tank is maintained full and overflows to the Hull Fuel Oil Tank. The Settling Tank also overflows to the Hull Fuel Oil Tank. It is most likely that any overflow will be contained within the system until the pumps are stopped.

During transfers of fuel from the Day tank to the other consumers e.g. the Cement Unit the operation will be closely monitored by the operators and spillage is unlikely to occur, any spillage will be limited to the local area. Any spillage will be small and will be cleaned up by the Installation staff.

If the incident should be serious enough and an actual discharge occurs then the necessary Hazardous Substances report will require to be completed by the OIM.

Most of the resulting overflow will be contained by the bunding on the Main Deck and will be drained into the waste water tank, any remaining pools of oil can then be contained using the portable spill kits which are maintained in designated areas. Any loss over THE side will be extremely limited. No further action other than reporting the event is likely.

Discharge During Transfer To Day Tanks Or Installation Equipment			
	MAIN ACTION	DETAILED ACTION	BY WHOM
ACTIONS	Minimize Spill Spill Response	Cease Pumping Operations Clean Up Onboard Spill	Chief Mech. Chief Mech.
	MESSAGE TO	CONTENT	BY WHOM
REPORTS	OIM Company Base Office/Rig Manager Operator Flag State Authority	Report Overfill Situation Report Situation Report As Required By Legislation	Chief Mech. OIM Client Rep. OIM/Client Rep.
	RECORDS OF	CONTENT	BY WHOM
RECORD S	All Messages All Actions	Callers And Recipients On And Concerning Rig	R/O Barge Supv


3.2.5 Discharge due to Pipe Leakage

Prevention

The fuel system is maintained, including pipe work inspections and testing within the Installation Planned Maintenance system, therefore leakage is extremely unlikely. Additional activities in environmentally sensitive areas may include pressure testing pipe work before commencement of the operation, before each well or before each fuel loading. The equipment etc. is within the Installation's structure and is also provided with save-alls where appropriate.

Preparation

REVISION NO:	0.0	FILE CODE	PAGE	OF
REVISION DATE:	1st Nov 2008	Aban – Pearl - 001	27	96

	ABAN PEARL – SOPEP - 001	SECTION:	03
		SUBSECTION:	na
REPORTING REQUIREMENTS			

The fuel transfer lines onboard the Rig are routed through the Mud Pump Room within the deck structure and do not pass through any other tanks. Therefore any leakage will be quickly detected. All fuel transfers are carefully supervised and therefore should a leak develop the transfer will be stopped immediately in a similar manner to the tank overflow. Any spillage will be cleaned up and the fault will be rectified.

The fuel oil loading lines are routed from the loading station directly down to hull fuel tanks. The transverse loading line from Port loading station to Starboard loading station is routed through the mud processing area. The pipe joints within the vessel and tanks are generally of welded construction and there is minimal risk of any leak occurring. Should a serious incident or an actual discharge occur then the necessary Harmful Substances report will require to be completed by the OIM.


Discharge Due To Pipe Leakage			
	MAIN ACTION	DETAILED ACTION	BY WHOM
ACTIONS	Minimize Spill Spill Response (If Leakage Revealed Immediately) Spill Response (If Leakage Revealed At Later Date)	Cease Pumping Operations Clean Up Onboard Spill Cease Operation Identify Leaking Line Carry Out Any Required Transfer Of Contents / Clean Up Onboard Spill	Chief Mech. Chief Mech. Chief Mech. Barge Supv. Chief Mech.
	MESSAGE TO	CONTENT	BY WHOM
REPORTS	OIM Company Base Office/Rig Manager Operator Flag State Authority	Report Leaking Hose Situation Report Situation Report As Required By Legislation	Chief Mech. OIM Client Rep. OIM/Client Rep.
	RECORDS OF	CONTENT	BY WHOM
RECORDS	All Messages All Actions	Callers And Recipients On And Concerning Rig	R/O Barge Supv.

3.2.6 Discharge Due to Hull Leakage.

The fuel oil storage tanks within the hulls are located outboard and consequently can be damaged by collision with another vessel. Internal access into the tanks is gained through manholes in the center columns. Any leakage into these spaces would be confined within the Installation and no pollution would occur.

Therefore Hull leakage of fuel oil to the sea would only occur due to some form of Hull failure and this will be considered for the Installation in two conditions:

REVISION NO:	0.0	FILE CODE	PAGE	OF
REVISION DATE:	1st Nov 2008	Aban – Pearl - 001	28	96

	ABAN PEARL – SOPEP - 001	SECTION:	03
		SUBSECTION:	na
REPORTING REQUIREMENTS			

1. At Transit draft
2. At Operating draft

Prevention

Additional activities in environmentally sensitive areas may include the provision of collision warning equipment. The possibility of vessel collisions are reduced by ensuring every effort is made to communicate with and divert the errant vessel.

Preparation

The location of the hull fuel tanks are such that a collision which caused them to rupture would almost certainly be a life threatening event, and consequently the safety of the crew, and then the securing of the Installation assumes priority.

There is effectively no possibility that a collision could rupture both of the fuel tanks without causing the total loss of the Installation, however there is the chance that one tank could be ruptured.

Once the crew and the installation have been made safe and the total damage assessed there is no doubt that fuel could be transferred from the ruptured tank to an intact tank, since the Installation is working the total fuel which is customarily carried could be held in one tank only.

Discharge From Rig Fuel Tanks Subsequent To Collision - Operating			
	MAIN ACTION	DETAILED ACTION	BY WHOM
PRIMARY ACTIONS	Make Crew Safe	Initiate Down manning (Refer To	OIM
	Make Installation Safe	Emergency Response Manual)	Chief Mech. Barge Supv. Barge Supv. Barge Supv. Barge Supv.
	Mitigate Pollution	Muster in TR Prepare For Evacuation Assess Damage Initiate Rig Move Check Stability Carry Out Ballasting/De-Ballasting Identify Leaking Tank Transfer Fuel	


REVISION NO:	0.0	FILE CODE	PAGE	OF
REVISION DATE:	1st Nov 2008	Aban – Pearl - 001	29	96

REPORTING REQUIREMENTS

	MESSAGE TO	CONTENT	BY WHOM
PRIMARY REPORTS	Pan Message to Coast Station VHF/MF	Situation Report Manning Injuries Assistance	R/O
	Company Base Office/Rig Manager Satellite Tel/ Cell phone	Situation Report Injuries Assistance	OIM
	Operator Satellite Tel/Cell phone	Situation Report Injuries Assistance	Client Rep.
	Flag State Authority	As Required By Legislation	OIM/Client Rep
	MAIN ACTION	DETAILED ACTION	BY WHOM
NEXT ACTIONS	Down manning Takes Place	Schedule Helicopters Assemble Crew Dispatch Crew Regain Trim/Stability Prepare For Relocation	R/O Medic Medic Barge Supv.
	Rig Move Commences	Check Weather Check For Pollution	OIM OIM OIM
	Rig In Transit		
	MESSAGE TO	CONTENT	BY WHOM
NEXT REPORTS	Company Base Office/Rig Manager	Situation Report Pollution FU Report Situation Report	OIM Client Rep.
	Operator Flag State Authority	As Required By Legislation	OIM/Client Rep
	RECORDS OF	CONTENT	BY WHOM
RECORDS	All messages	Callers and recipients	R/O
	All actions	On & concerning rig	Barge Supv

3.3 Discharge Resulting from Drilling and Related Activities

REVISION NO:	0.0	FILE CODE	PAGE	OF
REVISION DATE:	1st Nov 2008	Aban – Pearl - 001	30	96

	ABAN PEARL – SOPEP - 001	SECTION:	03
		SUBSECTION:	na
REPORTING REQUIREMENTS			

3.3.1 Discharge of Oil Based Mud due to Failure of Loading Hose

The possibility of the event occurring and the actions to be taken are identical to those which relate to the failure of the flexible fuel loading hose.

In the event of discharge to the sea no further mitigating action would be likely, since, water based mud is used and in the case of oil base mud, due to the adherence of the particles of Barite to the base oil there is a tendency for the liquid to sink beneath the surface of the sea, and any residual oil on the sea surface would be dispersed by wave action.

In the event of the Discharge of OBM occurring during loading it will be necessary for a Harmful Substances (HS) report to be completed by the OIM.

Discharge Due To Failure Of Flexible Loading Hose			
	MAIN ACTION	DETAILED ACTION	BY WHOM
ACTIONS	Minimize Spill Spill Response	Cease Pumping Operations Shut Down Fuel System Recover Hose Send SBV To Monitor Slick	Ship Master Barge Supv. Barge Supv. OIM
	MESSAGE TO	CONTENT	BY WHOM
REPORTS	Ship Master OIM Company Base Office/Rig Manager Operator Flag State Authority	Report Leaking Hose Report Leaking Hose Situation Report Situation Report As Required By Legislation	Barge Supv. Barge Supv. OIM Client Rep. OIM/Client Rep.
	RECORDS OF	CONTENT	BY WHOM
RECORDS	All Messages All Actions	Callers And Recipients On And Concerning Rig	R/O Barge Supv.


3.3.2 Discharge due to Well Testing Equipment Failure

During well testing, well fluids are only flowed when the actual burning is performed. In close attendance at this time are the Test Company personnel as well as rig crew.

Potential areas of well fluid discharge could be at piping joints that connect the various components of the well test equipment or at separator overflow. Both of these are extremely unlikely due to the checks during installation of the Well Test equipment and the maintenance performed on the equipment by trained, competent Test Company personnel. In the event of any fluid discharge within the well test area, the Driller a member of the Test Company personnel, would immediately operate the closest ESD control, shutting the flow valve thereby stopping the flow of well fluids.

The skid-mounted test components are generally fitted with integral save-all's and any spillage would be contained.

REVISION NO:	0.0	FILE CODE	PAGE	OF
REVISION DATE:	1st Nov 2008	Aban – Pearl - 001	31	96

	ABAN PEARL – SOPEP - 001	SECTION:	03
		SUBSECTION:	na
REPORTING REQUIREMENTS			

Should there be a discharge of Well Fluids into the sea a Harmful Substances (HS) report will be completed by the Installations OIM.

Discharge Due To Well Testing Equipment Failure			
	MAIN ACTION	DETAILED ACTION	BY WHOM
ACTIONS	Minimize Spill	Operate Automatic ESD System Activate Any Automatic Deluges Stem Leak Clean Up Spill on platform	Driller Driller DST Supv Barge Supv.
	MESSAGE TO	CONTENT	BY WHOM
REPORTS	Well Test Area With Radio Room Radio Room With OIM Company Base Office/Rig Manager Operator Flag State Authority	Report Leakage Report Leakage Situation Report Situation Report As Required By Legislation	Driller RO OIM Client Rep. OIM/Client Rep
	RECORDS OF	CONTENT	BY WHOM
RECORDS	All Messages All Actions	Callers And Recipients On And Concerning Rig	R/O Barge Supv.

3.3.3 Discharge as a Result of Failure of the Mud Delivery System

Prevention


The possibility of accidental discharge is reduced by ensuring procedures are in place, and personnel are trained to ensure competency.

Preparation

The Pumpman / Derrickman has the duty of controlling and monitoring mud delivery operations. It is likely that an accidental discharge will be noticed almost immediately and the appropriate action will be taken to minimize/stop the spill. Any loss over-side will therefore be limited. No further action other than reporting the event is likely. The standby vessel may be sent to monitor the slick.

Discharge As A Result Of Malfunction of The Mud Delivery System			
	MAIN ACTION	DETAILED ACTION	BY WHOM
ACTIONS	Minimize Spill Spill Response	Cease Operations Send SBV To Monitor Slick	Derrickman OIM
	MESSAGE TO	CONTENT	BY WHOM
REPORTS	OIM Company Base Office/Rig Manager Operator Flag State Authority	Report Discharge Situation Report Situation Report As Required By Legislation	Derrickman OIM Client Rep. OIM/Client Rep.

REVISION NO:	0.0	FILE CODE	PAGE	OF
REVISION DATE:	1st Nov 2008	Aban – Pearl - 001	32	96

	ABAN PEARL – SOPEP - 001	SECTION:	03
		SUBSECTION:	na
REPORTING REQUIREMENTS			

	RECORDS OF	CONTENT	BY WHOM
RECORDS	All Messages All Actions	Callers And Recipients On And Concerning Rig	R/O Barge Supv.

3.4 Prevention and Control of Pollution from Major Accident

3.4.1 Discharge due to Blowout

Any Blow-out occurring on an offshore Installation is a very serious event. Blowouts may occur in various ways depending on the circumstances and drilling arrangement prevailing at the time. Principally there are three situations to be considered:

1. Blow-out sub sea i.e. top hole drilling with no BOP in place yet
2. Blow-out at the drill floor with Diverter System in use

3.4.1.1 Blow-out Sub Sea / Shallow Gas.

In the event of a blow-out occurring sub sea, prior to the BOP being run, the chosen course of action will be to move the barge off location. This may be achieved using the Mooring System if power is still available or by emergency release of some of the Moorings and using stored energy in the catenary of the remaining anchor wires, to pull the Installation out of the danger area. It may be necessary to drop the drill string and close co-operation between drilling and marine operations is essential.

In this situation the non-essential personnel will be mustered in the Muster Stations and preparations to down-man the Installation will be initiated. It is likely that there will be no practicable mitigating action available to the Installation. The necessary Harmful Substances (HS) report will be completed by the OIM when circumstances permit.

3.4.1.2 Blow-out with Diverter in use.

In the event of a Blow-out occurring with a pin connector and Diverter in use, the down hole mud and other well fluids will be ejected from the hole initially, then the flow will be directed through the Diverter system. This is only perceived as a means of "buying time" to move the rig off location, and the sequence of events will be similar to those described above.

3.4.1.3 Blow-out with BOP in-situ.

A Blow-out occurring with a BOP in-situ may commence with the ejection of well fluids, but then be brought under control by the Driller using the BOP functions. The process of "killing the Well" may then be initiated. Consideration must be given by the OIM to down-man the Installation.

REVISION NO:	0.0	FILE CODE	PAGE	OF
REVISION DATE:	1st Nov 2008	Aban – Pearl - 001	33	96

REPORTING REQUIREMENTS

In the event of the blow-out igniting, the actions taken thereafter are primarily concerned with the preservation of life. Events may dictate that the best option will be to move the Installation off location, as described above.

The necessary Harmful Substances (HS) report will be completed by the OIM when circumstances permit.


As one of the consequences of a blow-out, it is likely that there will be debris and oil on board the Installation over many surfaces, which will need to be cleaned up, using the appropriate detergent to lift the oil from the surfaces after which it can be mopped up and placed in suitable tanks or receptacles. Oil in the water will be dealt within Sarawak area by detergent spraying by the Standby vessel (the appropriate permission having been gained), and possibly at the behest of the Operator by a dedicated oil recovery vessel, or by supply vessels equipped with anti-pollution equipment.

Dedicated anti-pollution vessels may be mobilized for pollution control duties, though the extent and the manner in which this operation is carried out will depend on the coastal State legislation and the availability of anti-pollution services.

The Rig is provided with a management system having within it detailed procedures for the prevention of blowout. The company has carried out suitable qualitative risk assessment in order to reduce the risk of blowout to ALARP.

Discharge Due To Blowout			
	MAIN ACTION	DETAILED ACTION	BY WHOM
PRIMARY ACTIONS	<p>Make Crew Safe</p> <p>Make Installation Safe Mitigate Pollution</p>	<p>Muster in Muster Station Initiate Down manning (Refer To Emergency Response Manual)</p> <p>Prepare LSAs Call in SBV Kill Well Call for Assistance</p>	<p>OIM</p> <p>Driller OIM/ Client Rep.</p>
	MESSAGE TO	CONTENT	BY WHOM
PRIMARY REPORTS	<p>Pan Message to Coast Station VHF/MF</p> <p>Company Base Office/Rig Manager Satellite Tel/ Cell phone</p> <p>Client Satellite Tel/Cell phone</p>	<p>Situation Report Manning Injuries Assistance</p> <p>Situation Report Injuries Assistance</p> <p>Situation Report Injuries Assistance</p>	<p>R/O</p> <p>OIM</p> <p>Client Rep.</p>

REVISION NO:	0.0	FILE CODE	PAGE	OF
REVISION DATE:	1st Nov 2008	Aban – Pearl - 001	34	96

	ABAN PEARL – SOPEP - 001	SECTION:	03
		SUBSECTION:	na
REPORTING REQUIREMENTS			

	Flag State Authority	As Required By Legislation	OIM/Client Rep
	MAIN ACTION	DETAILED ACTION	BY WHOM
NEXT ACTIONS	Down manning Takes Place Maintain Personnel Safety Secure Well Maintain Installation Security Mitigate Pollution	Schedule Helicopters or Schedule Supply vessel/SBV Assemble Crew Dispatch Crew Keep LSAs in readiness Follow well control Procedures Keep doors shut Minimize use of machinery Avoid naked lights FFAs in readiness Action Intervention	R/O Barge Supv Medic Medic OIM Driller OIM Barge Supv Client Rep.
	MESSAGE TO	CONTENT	BY WHOM
NEXT REPORTS	Company Base Office/Rig Manager Client	Situation Report Pollution FU Report Situation Report	OIM Client Rep.
	RECORDS OF	CONTENT	BY WHOM
RECORDS	All messages All actions	Callers and recipients On & concerning rig	R/O Barge Supv

3.5 Discharge Resulting from Casualties

3.5.1 Discharge as a Result of Grounding

For the Installation to go aground it will almost certainly occur while it is in transit. For this to happen it is likely to also involve loss of tow and/or extremely adverse weather conditions. However, there is also the possibility that a grounding could occur if the tow routing takes the Installation and towing vessel through a narrow passage e.g. entering or leaving a dockyard facility.

In any event, pollution control will form a component of the Installation's Emergency Plan. While the adverse weather continues it is not likely that any mitigating actions will be possible and that these will be coordinated from ashore.

It is possible, should grounding occur that damage to and rupture of the one or more hull tank/s would be a consequence. This would be a catastrophic event with a significant pollution risk.

The Installation while in transit is normally at its minimum draft. It is considered prudent for the Emergency crew to remain on board, steps may be taken to reduce the possibility or

REVISION NO:	0.0	FILE CODE	PAGE	OF
REVISION DATE:	1st Nov 2008	Aban – Pearl - 001	35	96

REPORTING REQUIREMENTS

extent of pollution, if the opportunity to transfer fuel to other intact tanks or to an attending vessel still exists at this time. The appropriate action to be taken will depend on the circumstances.


The OIM will have many variables to consider should a grounding either occur or be inevitable. Some of the courses of action available to the OIM in this situation include but are not limited to one or more of the following:

1. Prepare to down-man to emergency crew or evacuate of the Installation.
2. Secure watertight compartments.
3. Dropping anchors to prevent further movement.
4. Ballasting the Installation to immobilize it, sitting on the bottom.
5. Carry out damage assessment.

In the event of the Installation going aground it will be necessary for a Harmful Substances (HS) report to be completed by the OIM, whether actual discharge has

Discharge As A Result Of Grounding			
	MAIN ACTION	DETAILED ACTION	BY WHOM
PRIMAR Y ACTIONS	Make Crew Safe	Initiate Down manning (Refer	OIM
		To	
	Make Installation Safe	Emergency Response	OIM Chief Mech. <i>Barge Supv.</i>
	Mitigate Pollution	Manual)	Barge Supv Barge Supv. Barge Supv.
	Prepare For Re-floating	Muster in TR Prepare For Evacuation Secure Compartments Assess Damage Check Stability Carry Out Ballasting/De- Ballasting Identify Leaking Tank Possible Fuel Transfer Identify Assistance Review Tides/Weather Lighten Rig	OIM OIM Barge Supv.
	MESSAGE TO	CONTENT	BY WHOM
PRIMAR Y REPORTS	Pan Message to Coast Station, VHF/MF	Situation Report Manning Injuries Assistance	R/O
	Company Base Office/Rig Manager	Situation Report Injuries	OIM

REVISION NO:	0.0	FILE CODE	PAGE	OF
REVISION DATE:	1st Nov 2008	Aban – Pearl - 001	36	96

	ABAN PEARL – SOPEP - 001	SECTION:	03
		SUBSECTION:	na
REPORTING REQUIREMENTS			

	Satellite Tel/ Cell phone Operator Satellite Tel/Cell phone Flag State Authority	Assistance Situation Report Injuries Assistance As Required By Legislation	Client Rep. OIM/Client Rep
	MAIN ACTION	DETAILED ACTION	BY WHOM
NEXT ACTIONS	Down manning Takes Place Take Best Course To Safe Haven Maintain Emergency Status	Schedule Helicopters Assemble Crew Dispatch Crew Prepare For Relocation Monitor Hull Damage Monitor Weather Crew Mustered	R/O Medic Medic OIM Chief Mech. OIM OIM
	MESSAGE TO	CONTENT	BY WHOM
NEXT REPORTS	Company Base Office/Rig Manager Operator Flag State Authority	Situation Report Pollution FU Report Situation Report As Required By Legislation	OIM Client Rep. OIM/Client Rep
	RECORDS OF	CONTENT	BY WHOM
RECORDS	All messages All actions	Callers and recipients On & concerning rig	R/O Barge Supv

3.5.2 Discharge due to Fire/Explosion.

There are considered to be no fire/explosion scenarios which would lead to the discharge of any pollution to the sea, with the exception of fire/explosion due to blow-out, which might result in the discharge of pollutants. This scenario is only likely to happen where the drilling package is situated. These blow-out scenarios are considered separately.

3.5.3 Discharge due to Vessels Colliding within 500m Zone


Prevention

The possibility of such a collision is reduced by ensuring every effort is made to communicate with and divert the errant vessels.

Preparation

The Installation OIM/MIC is responsible for all activities within the 500 m zone, hence it is his responsibility to report a collision which results in discharge of oil and supervise efforts to mitigate the effects.

REVISION NO:	0.0	FILE CODE	PAGE	OF
REVISION DATE:	1st Nov 2008	Aban – Pearl - 001	37	96

	ABAN PEARL – SOPEP - 001	SECTION:	03
		SUBSECTION:	na
REPORTING REQUIREMENTS			

Subsequent to any collision assuming that no life threatening situation exists the OIM should interrogate the vessel masters as to the action being taken to control pollution. They of course will have their own pollution prevention plan which may involve the transfer of oil, and these activities can only be monitored from the installation.

However it will be up to the Installation OIM to mobilize available vessels to undertake oil recovery or dispersal.

Discharge From Visiting Vessel Subsequent To Collision			
	MAIN ACTION	DETAILED ACTION	BY WHOM
ACTIONS	Ensure Installation In No Danger Ensure Safety Of Vessel Crews Mitigate Pollution	Assess Situation Obtain Status Report Monitor Action Taken By Vessels Initiate Clean Up	OIM OIM OIM OIM
	MESSAGE TO	CONTENT	BY WHOM
REPORTS	Pan Message to Coast Station VHF/MF Company Base Office/Rig Manager Satellite Tel/ Cell phone Operator Satellite Tel/Cell phone Flag State Authority	Situation Report Injuries Assistance Situation Report Injuries Assistance Situation Report Injuries Assistance As Required By Legislation	R/O OIM Client Rep. OIM/Client Rep
	RECORDS OF	CONTENT	BY WHOM
RECORDS	All messages All actions	Callers and recipients On & concerning rig	R/O Barge Supv


3.5.4 Discharge From Visiting Vessel Subsequent To Collision

The most likely vessel collision involving the Installation is one with a visiting vessel, either one supplying the Installation or assisting to move it. It is probable that such a collision will not be one of high energy and hence the resulting structural damage should not be serious. However, any collision with/by an attending vessel would probably occur whilst the Installation was in one of two modes i.e.:

- a) Operating
- b) In Transit

Due to the location of the hull fuel oil storage tanks the risk of collision causing damage and rupture of them does exist. However, a collision which causes either an "Actual" or "Probable" pollution risk must be considered as a very serious. As a consequence the safety of the crew and then the security of the Installation must assume priority.

REVISION NO:	0.0	FILE CODE	PAGE	OF
REVISION DATE:	1st Nov 2008	Aban – Pearl - 001	38	96

	ABAN PEARL – SOPEP - 001	SECTION:	03
		SUBSECTION:	na
REPORTING REQUIREMENTS			

a) Operating

Due to the location of the hull tanks it is possible that collision with an attending Vessel will cause "Actual" or "Probable" discharge of oil from the Installation as a primary consequence of the collision.

In either of these situations the damage will need to be assessed, the crew and the Installation have been made as safe as possible. It will be necessary for the OIM to decide whether to down-man the Installation. Any Emergency personnel remaining onboard the Installation at this time may, if power is still available be able to transfer fuel oil from damaged tank to intact tank, to mitigate the effects of pollution.

The actions required after a collision will include but not be restricted to one or more of the following:


1. Secure watertight compartments.
2. Carry out damage assessment.
3. Complete stability checks/calculations.
4. Carry out ballasting/de-ballasting operations as appropriate.
5. Prepare to down-man to the Emergency crew or to evacuate the Installation.

In these instances it is the responsibility of the vessel master to assess his own vessel's damage and requirements and to take any action practicable to mitigate the pollution risk. As detailed in their vessel SOPEP.

After a collision has occurred, resulting in an oil spill it will be necessary, if possible for a Harmful Substances (HS) report to be completed by the OIM. Although this must take an appropriate level of priority in the actions required at the time of the incident. In completing the report the OIM must also ensure that the situation regarding the other vessel involved is also taken into account.

Discharge From Visiting Vessel Subsequent To Collision			
	MAIN ACTION	DETAILED ACTION	BY WHOM
ACTIONS	Ensure Installation Safe Ensure Safety Of Vessel Crew Mitigate Pollution	Assess Damage Obtain Status Report Monitor Action Taken By Vessel Initiate Clean Up	Chief Mech. OIM OIM OIM
	MESSAGE TO	CONTENT	BY WHOM
REPORTS	Pan Message to Coast Station VHF/MF	Situation Report Injuries Assistance	R/O
	Company Base Office/Rig Manager Satellite Tel/ Cell phone	Situation Report Injuries Assistance	OIM
	Client Satellite Tel/Cell phone	Situation Report Injuries Assistance As Required By Legislation	Client Rep. OIM/Client

REVISION NO:	0.0	FILE CODE	PAGE	OF
REVISION DATE:	1st Nov 2008	Aban – Pearl - 001	39	96

	ABAN PEARL – SOPEP - 001	SECTION:	03
		SUBSECTION:	na
REPORTING REQUIREMENTS			

	Flag State Authority		Rep
	RECORDS OF	CONTENT	BY WHOM
RECORDS	All messages All actions	Callers and recipients On & concerning rig	R/O Barge Supv

3.5.5 Discharge From Passing Vessel Subsequent To Collision

In the event of a passing vessel collision there is the possibility of a higher energy impact and of serious structural damage to the Installation as well as the vessel itself.

It will therefore be the initial requirement of the OIM to:


1. Secure watertight compartments.
2. Assess the level of damage to the Installation.
3. Deal with any casualties.
4. Complete stability checks/calculations.
5. Carry out ballasting/de-ballasting operations as appropriate.
6. Subsequently to carry out a similar investigations for the errant vessel.

As in the previous case it remains the responsibility of the OIM/MIC to minimize the outflow of oil in accordance with his own SOPEP, but the OIM should take steps to organize the services to act on the pollution on the sea surface.

After a collision has occurred, resulting in an oil spill it will be necessary, if possible for a Harmful Substances (HS) report to be completed by the OIM. Although this must take an appropriate level of priority in the actions required at the time of the incident. In completing the report the OIM must also ensure that the situation regarding the other vessel involved is taken into account.

Discharge From Passing Vessel Subsequent To Collision			
	MAIN ACTION	DETAILED ACTION	BY WHOM
PRIMARY ACTIONS	Make Crew Safe	Initiate Down manning (Refer	OIM
	Make Installation Safe	To	
	Ensure Safety Of Vessel Crew Mitigate Pollution	Emergency Response Manual)	Chief Mech. Barge Supv. Barge Supv. OIM OIM OIM
	Move To Safe Haven	Muster in TR Prepare For Evacuation Assess Damage Initiate Rig Move Check Stability Obtain Status Report	Barge Supv.

REVISION NO:	0.0	FILE CODE	PAGE	OF
REVISION DATE:	1st Nov 2008	Aban – Pearl - 001	40	96

	ABAN PEARL – SOPEP - 001	SECTION:	03
		SUBSECTION:	na
REPORTING REQUIREMENTS			


		Monitor Action Taken By Vessel Initiate Clean Up Check Stability	
	MESSAGE TO	CONTENT	BY WHOM
PRIMARY REPORTS	Pan Message to Coast Station VHF/MF	Situation Report Manning Injuries Assistance	R/O
	Company Base Office/Rig Manager Satellite Tel/ Cell phone	Situation Report Injuries Assistance Situation Report	OIM Client Rep.
	Operator Satellite Tel/Cell phone	Injuries Assistance As Required By Legislation	OIM/ClientRep
	Flag State Authority		ep
	MAIN ACTION	DETAILED ACTION	BY WHOM
NEXT ACTIONS	Down manning Takes Place	Schedule Helicopters Assemble Crew Dispatch Crew	R/O Medic Medic
	Rig Move Commences	Check Hull For Water Float Rig	Barge Supv. OIM
	Rig In Transit	Check Weather Check Hull	OIM Barge Supv.
	Rig Elevated In Safe Haven		
	MESSAGE TO	CONTENT	BY WHOM
NEXT REPORTS	Company Base Office/Rig Manager	Situation Report Pollution FU Report Situation Report	OIM Client Rep.
	Operator Flag State Authority	As Required By Legislation	OIM/ClientRep ep
	RECORDS OF	CONTENT	BY WHOM
RECORDS	All messages All actions	Callers and recipients On & concerning rig	R/O Barge Supv

3.5.6 Hull Failure

If any hull compartment should be flooded, this shall result in an inclination of the Installation. The priority action is restoring the horizontal position of the installation while keeping the draft within a safe range.

Having assessed the damage that the vessel has sustained, and taking into account the effects of hull stress and stability, the master should decide whether or not any action can be taken to prevent or minimize further spillage. When bottom damage is sustained,

REVISION NO:	0.0	FILE CODE	PAGE	OF
REVISION DATE:	1st Nov 2008	Aban – Pearl - 001	41	96

	ABAN PEARL – SOPEP - 001	SECTION:	03
		SUBSECTION:	na
REPORTING REQUIREMENTS			

hydrostatic balance will be achieved fairly rapidly, especially if the damage is severe, in which case the time available for preventive action will often be limited. When significant hull failure is sustained in the way of fuel/lubrication and/or cargo tanks, oil will be released fairly rapidly until hydrostatic balance is achieved and the rate of release will then be reduced and be governed by the rate at which oil is displaced by the water flowing in under the oil.

Should the vessels sustained extensive damages, it may be necessary to transfer all or part of the cargo or fuel ashore or to another vessel. The vessel's ship-to-ship transfer or bunkering procedure should be followed and co-ordinated with Coastal Authorities as such operation may be subject to jurisdiction. Quick, efficient co-ordination between the vessel and the Coastal States or other involved parties becomes vital in mitigating the effects of a pollution incident. Authorization prior to undertaking mitigating actions must always be received from the Coastal Authorization.

The OIM/MIC should then assess the situation for pollution purposes as follows

If oil has spilled, inform the appropriate parties in accordance with Section 2 of this plan.

If immediate action is necessary to jettison cargo, inform the appropriate parties in accordance with Section 2 of this plan.

Consider whether offloading of oil that is necessary in order to maintain stability can wait until another ship or a barge is available.

If the change in stability and stress cannot be calculated on board, contact personnel - Appendix 6.3.1 Emergency Contact List, and arrange for the necessary calculations to be carried out.

Consider the forecast weather conditions and the effect they may have on the situation

The following action shall be carried out immediately and simultaneously

- Sound the emergency alarm and muster the crew.
- Reduce speed or stop to minimize stress on the hull.
- Assess the immediate danger of sinking or capsize.
- Initiate damage control measures.
- Reduce the inert gas pressure to zero.

3.5.7 Discharge from Rig Fuel Tanks Subsequent to Collision


Prevention

Additional activities in environmentally sensitive areas may include the provision of collision warning equipment. The possibility of vessel collisions are reduced by ensuring every effort is made to communicate with and divert the errant vessel.

Preparation

The location of the hull fuel tanks are such that a collision which causes them to rupture would almost certainly be a life threatening event, and consequently the safety of the crew, and then the securing of the Installation assumes priority.

REVISION NO:	0.0	FILE CODE	PAGE	OF
REVISION DATE:	1st Nov 2008	Aban – Pearl - 001	42	96


	ABAN PEARL – SOPEP - 001	SECTION:	03
		SUBSECTION:	na
REPORTING REQUIREMENTS			

There is effectively no possibility that a collision could rupture both of the fuel tanks without causing the total loss of the Installation, however there is the remote chance that one tank could be ruptured.

Once the Installation and crew have been made safe it will be necessary to transfer any remaining fuel from the ruptured tank into an alternative location.

Discharge From Rig Fuel Tanks Subsequent To Collision - Transit			
	MAIN ACTION	DETAILED ACTION	BY WHOM
PRIMARY ACTIONS	Make Crew Safe Make Installation Safe Mitigate Pollution Proceed To Safe Haven	Initiate Down manning (Refer To Emergency Response Manual) Muster in TR Prepare For Evacuation Secure Compartments Assess Damage Check Stability Carry Out Ballasting/De-Ballasting Identify Leaking Tank Transfer Fuel Identify Haven Identify Course And Instruct Tug	OIM OIM Chief Mech. Barge Supv. Barge Supv. Barge Supv. Barge Supv. OIM OIM
	MESSAGE TO	CONTENT	BY WHOM
PRIMARY REPORTS	Pan Message to Coast Station VHF/MF Company Base Office/Rig Manager Satellite Tel/ Cell phone Operator (If Client Rep. Aboard) Satellite Tel/Cell phone Flag State Authority	Situation Report Manning Injuries Assistance Situation Report Injuries Assistance Situation Report Injuries Assistance As Required By Legislation	R/O OIM Client Rep. OIM/Client Rep
	MAIN ACTION	DETAILED ACTION	BY WHOM
NEXT ACTIONS	Down manning Takes Place (If not already down manned) Proceed To Safe Haven Maintain Emergency Status	Schedule Helicopters Assemble Crew Dispatch Crew Monitor Damage Monitor Weather Crew Mustered	R/O Medic Medic Chief Mech. OIM OIM
	MESSAGE TO	CONTENT	BY WHOM
NEXT REPORTS	Company Base Office/Rig Manager	Situation Report Pollution FU Report Situation Report	OIM Client Rep.

REVISION NO:	0.0	FILE CODE	PAGE	OF
REVISION DATE:	1st Nov 2008	Aban – Pearl - 001	43	96

	ABAN PEARL – SOPEP - 001	SECTION:	03
		SUBSECTION:	na
REPORTING REQUIREMENTS			

	Operator (If Client Rep. Aboard) Flag State Authority	As Required By Legislation	OIM/Client Rep.
	RECORDS OF	CONTENT	BY WHOM
RECORDS	All messages All actions	Callers and recipients On & concerning rig	R/O Barge Supv

3.5.8 Discharge Due to Hull Leakage – Transit condition

If a Hull failure should occur it is more likely that sea water would enter the tank than for fuel to leak out. This would be noticed by the Barge Supervisor during routine checking of the tank contents.

The first indication of oil leaking from the pontoon tanks to the sea would probably be the occurrence of an oil slick. During a rig move with the Installation under way and with surface disturbance from the wake, a small oil leak could well continue undetected for sometime.

The identification of a leakage of fuel from the fuel tanks within the hull will be viewed as an extremely serious event, being an initial indication of some form of Hull failure, potentially placing the Installation in danger. The first requirement is therefore to initiate the necessary communications, including informing Aban Drilling management and the Masters of the towing and/or attending vessel/s, of the situation.

Priority activities for the Installation's OIM and Maintenance Supervisor must be damage assessment and limitation. Damage assessment will include close monitoring of the tank levels and of the oil slick, and the possibility of using an ROV if available may be considered. Damage limitation for the Installation may take any of several courses of action including but not limited to one or more of the following:

1. Secure watertight compartments.
2. Change direction of tow or cease towing.
3. Complete stability checks/calculations.
4. Carry out ballasting/de-ballasting operations as appropriate.
5. Prepare to down-man to Emergency crew or to evacuate the Installation.
6. Head for a safe haven/sheltered waters.

Consideration must also be given to the remaining fuel in the damaged tank and whether it is possible and advisable to transfer it to the intact tank to reduce the potential for pollution. Should there be no available capacity onboard to do this, it may be possible for the contents of the damaged tank to be transferred, via the fuel oil loading lines, to an attendant vessel. The OIM should also consider that the tank will continue to fill and that any remaining fuel will float on top of the sea water and may then pose no further pollution risk. The resulting stability situation and counter flooding to maintain trim should be calculated.

In the event that all of the fuel stored in tanks in the pontoons becomes contaminated, then the loss of all power generating capability and subsequently propulsion and other services will eventually occur. It may be possible to remove the contamination by transferring fuel

REVISION NO:	0.0	FILE CODE	PAGE	OF
REVISION DATE:	1st Nov 2008	Aban – Pearl - 001	44	96


REPORTING REQUIREMENTS

to the settling tank, draining off any sea water as it settles out and then purifying that remaining volume of fuel into the Day Tank.

In the event of Hull leakage occurring during Transit it will be necessary for a Harmful Substances (HS) report to be completed by the OIM. Although this must take an appropriate level of priority in the actions required at the time of the incident.

Discharge Due To Hull Leakage - Transit			
	MAIN ACTION	DETAILED ACTION	BY WHOM
PRIMAR Y ACTIONS	Make Crew Safe	Initiate Down manning (Refer To Emergency Response Manual)	OIM
	Make Installation Safe	Muster in TR	OIM Chief Mech. Barge Supv. Barge Supv. Barge Supv.
	Mitigate Pollution	Prepare For Evacuation Secure Compartments	Barge Supv. Barge Supv.
	Proceed To Safe Haven	Assess Damage Check Stability Carry Out Ballasting/De-Ballasting Identify Leaking Tank Check Stability Possible Fuel Transfer Identify Haven Identify Course And Instruct Tug	OIM OIM
	MESSAGE TO	CONTENT	BY WHOM
PRIMAR Y REPORTS	Pan Message to Coast Station VHF/MF	Situation Report Manning Injuries Assistance	R/O
	Company Base Office/Rig Manager Satellite Tel/ Cell phone	Situation Report Injuries Assistance	OIM
	Operator (If Client Rep. Aboard) Satellite Tel/Cell phone	Situation Report Injuries Assistance	Client Rep.
	Flag State Authority	As Required By Legislation	OIM/Client Rep
	MAIN ACTION	DETAILED ACTION	BY WHOM
NEXT ACTIONS	Down manning Takes Place (If not already down manned)	Schedule Helicopters Assemble Crew Dispatch Crew	R/O Medic Medic
	Proceed To Safe Haven	Monitor Hull Damage	Chief Mech.

REVISION NO:	0.0	FILE CODE	PAGE	OF
REVISION DATE:	1st Nov 2008	Aban – Pearl - 001	45	96

	ABAN PEARL – SOPEP - 001	SECTION:	03
		SUBSECTION:	na
REPORTING REQUIREMENTS			

	Maintain Emergency Status	Monitor Weather Crew Mustered	OIM OIM
	MESSAGE TO	CONTENT	BY WHOM
NEXT REPORTS	Company Base Office/Rig Manager Operator (If Client Rep. Aboard) Flag State Authority	Situation Report Pollution FU Report Situation Report As Required By Legislation	OIM Client Rep. OIM/Client Rep.
	RECORDS OF	CONTENT	BY WHOM
RECORDS	All messages All actions	Callers and recipients On & concerning rig	R/O Barge Supv

3.5.9 Discharge due to Hull Leakage – Operating condition


As in the first indication of hull leakage whilst the Installation is operating, may be evidence of oil pollution indicated by an oil slick on the sea surface, the location of which may give some indication as to which tank is damaged/leaking. The considerations for the OIM will be similar to that previously described although the actions available to him will vary i.e.:

1. Cease operations.
2. Secure watertight compartments.
3. Complete stability checks/calculations.
4. Carry out ballasting/de-ballasting operations as appropriate.
5. Prepare to down-man to the Emergency crew or evacuate the Installation.

In the event of Hull leakage occurring whilst at Operating it will be necessary for a Harmful Substances (HS) report to be completed by the OIM, although this must take an appropriate level of priority in the actions required at the time of the incident.

Discharge Due To Hull Leakage - Operating			
	MAIN ACTION	DETAILED ACTION	BY WHOM
PRIMARY ACTIONS	Make Crew Safe Make Installation Safe Mitigate Pollution	Initiate Down manning (Refer To Emergency Response Manual) Muster in TR Prepare For Evacuation Assess Damage Initiate Rig Move Check Stability Carry Out Ballasting/De-	OIM Chief Mech. Barge Supv. Barge Supv. Barge Supv. Barge Supv. Barge Supv.

REVISION NO:	0.0	FILE CODE	PAGE	OF
REVISION DATE:	1st Nov 2008	Aban – Pearl - 001	46	96

	ABAN PEARL – SOPEP - 001	SECTION:	03
		SUBSECTION:	na
REPORTING REQUIREMENTS			

		Ballasting Identify Leaking Tank Transfer Fuel Check Stability	
	MESSAGE TO	CONTENT	BY WHOM
PRIMARY REPORTS	Pan Message to Coast Station VHF/MF	Situation Report Manning Injuries Assistance	R/O
	Company Base Office/Rig Manager Satellite Tel/ Cell phone	Situation Report Injuries Assistance Situation Report	OIM Client Rep.
	Operator Satellite Tel/Cell phone	Injuries Assistance As Required By Legislation	OIM/Client Rep
	Flag State Authority		
	MAIN ACTION	DETAILED ACTION	BY WHOM
NEXT ACTIONS	Down manning Takes Place	Schedule Helicopters Assemble Crew Dispatch Crew Regain Trim/Stability Prepare For Relocation	R/O Medic Medic Barge Supv. OIM
	Rig Move Commences	Check/Monitor Weather Check For Pollution Monitor Hull Damage Maintain Emergency Status	OIM OIM Chief Mech. OIM
	Rig In Transit		
	MESSAGE TO	CONTENT	BY WHOM
NEXT REPORTS	Company Base Office/Rig Manager	Situation Report Pollution FU Report Situation Report As Required By Legislation	OIM Client Rep. OIM/Client Rep
	Operator Flag State Authority		
	RECORDS OF	CONTENT	BY WHOM
RECORDS	All messages All actions	Callers and recipients On & concerning rig	R/O Barge Supv

3.5.10 Discharge due to Excessive List

This scenario is not applicable to unit on which problems of progressively listing would be rectified, before any outflow through the tank ventilators could occur.

3.5.11 CONTAINMENT SYSTEM FAILURE

REVISION NO:	0.0	FILE CODE	PAGE	OF
REVISION DATE:	1st Nov 2008	Aban – Pearl - 001	47	96

REPORTING REQUIREMENTS


If there has been an internal failure of the cargo system containment system other than pipeline leakage it is likely that it will be detected by another symptom such as an excessive list, a tank over flow or external hull leakage often proceeded or accompanied by a loud ort an unusual noise. Advice on initial reaction in each case is described under other casualty sections. However once a failure of internal containment system has been identified there may be additional response that can be take to avoid or mitigate a spill

It will therefore be the initial requirement of the OIM or PIC to:

1. Warn all persons in the immediate area.
2. Make a PA with General Alarm
3. Eliminate Ignition sources and assess the level of damage to the Installation.
4. Consider the evacuation of non-essential personnel.

Containment System Failure			
	MAIN ACTION	DETAILED ACTION	BY WHOM
ACTIONS	Make Crew Safe Make Installation Safe Mitigate Pollution	Initiate Down manning (Refer To Emergency Response Manual) Muster in TR Prepare For Evacuation Secure Compartments Assess Damage Initiate Rig Move Check Stability Monitor Action Taken By Vessel Initiate Clean Up	OIM Chief Mech. Chief Mech Barge Supv. Barge Supv. OIM OIM
	MESSAGE TO	CONTENT	BY WHOM
PRIMARY REPORTS	Pan Message to Coast Station VHF/MF Company Base Office/Rig Manager Satellite Tel/ Cell phone Operator Satellite Tel/Cell phone Flag State Authority	Situation Report Manning Injuries Assistance Situation Report Injuries Assistance Situation Report Injuries Assistance As Required By Legislation	R/O OIM Client Rep. OIM/Client Rep
	MAIN ACTION	DETAILED ACTION	BY WHOM
NEXT ACTIONS	Down manning Takes Place Rig Move Commences Rig In Transit Rig Elevated In Safe Haven	Schedule Helicopters Assemble Crew Dispatch Crew Check Hull For Water Float Rig Check Weather Check Hull	R/O Medic Medic Barge Supv. OIM OIM Barge Supv.
	MESSAGE TO	CONTENT	BY WHOM
NEXT REPORTS	Company Base Office/Rig Manager Operator Flag State Authority	Situation Report Pollution FU Report Situation Report As Required By Legislation	OIM Client Rep. OIM/Client Rep

REVISION NO:	0.0	FILE CODE	PAGE	OF
REVISION DATE:	1st Nov 2008	Aban – Pearl - 001	48	96

	ABAN PEARL – SOPEP - 001	SECTION:	03
		SUBSECTION:	na
REPORTING REQUIREMENTS			

	RECORDS OF	CONTENT	BY WHOM
RECORDS	All messages All actions	Callers and recipients On & concerning rig	R/O Barge Supv

3.5.12 Submerged / Foundered

If the vessel is in imminent danger of foundering or being completely or partially submerged, safety of the lives of the crew will take priority over preventing pollution. However if time allows, it may be possible to take some measures that will limit subsequent spillage.


It will therefore be the initial requirement of the OIM or PIC to:

1. Warn all persons make PA, sound the General Alarm.
2. Determine if any injuries have occurred.
3. Prepare for evacuation if required.
4. Notify and request for appropriate assistance. Determine weather conditions.

Submerged / Foundered

	MAIN ACTION	DETAILED ACTION	BY WHOM
PRIMARY ACTIONS	Make Crew Safe Make Installation Safe Mitigate Pollution	Initiate Down manning (Refer To Emergency Response Manual) Muster in TR Prepare For Evacuation Assess Damage Check Stability Carry Out Ballasting/De-Ballasting Identify Leaking Tank Possible Fuel Transfer Identify Assistance Review Tides/Weather	OIM OIM Barge Supv. Barge Supv Barge Supv. Barge Supv. OIM OIM
	MESSAGE TO	CONTENT	BY WHOM
PRIMARY REPORTS	Pan Message to Coast Station, VHF/MF Company Base Office/Rig Manager Satellite Tel/ Cell phone Operator Satellite Tel/Cell phone Flag State Authority	Situation Report Manning Injuries Assistance Situation Report Injuries Assistance Situation Report Injuries Assistance As Required By Legislation	R/O OIM Client Rep. OIM/Client rep
	MAIN ACTION	DETAILED ACTION	BY WHOM
NEXT ACTIONS	Down manning Takes Place Take Best Course To Safe Haven Maintain Emergency Status	Schedule Helicopters Assemble Crew Dispatch Crew Prepare For Relocation Monitor Hull Damage Monitor Weather Crew Mustered	R/O Medic Medic OIM Chief Mech. OIM OIM
	MESSAGE TO	CONTENT	BY WHOM

REVISION NO:	0.0	FILE CODE	PAGE	OF
REVISION DATE:	1st Nov 2008	Aban – Pearl - 001	49	96

	ABAN PEARL – SOPEP - 001	SECTION:	03
		SUBSECTION:	na
REPORTING REQUIREMENTS			

NEXT REPORTS	Company Base Office/Rig Manager Operator Flag State Authority	Situation Report Pollution FU Report Situation Report As Required By Legislation	OIM Client Rep. OIM/Client rep
	RECORDS OF	CONTENT	BY WHOM
RECORDS	All messages All actions	Callers and recipients On & concerning rig	R/O Barge Supv

3.5.13 Wrecked / Stranded


If the vessel is wrecked or stranded the safety of lives of the crew will take priority over preventing pollution. However if time allows, it may be possible to take some measures that will limit subsequent spillage. Response to a wreck or stranding will use the action steps from the checklist.

It will therefore be the initial requirement of the OIM or PIC to:

1. Warn all persons make PA, sound the General Alarm.
2. Determine if any injuries have occurred.
3. Prepare evacuation if required.
4. Notify and request appropriate assistance

Wrecked / Stranded				
	MAIN ACTION		DETAILED ACTION	BY WHOM
PRIMARY ACTIONS	Make Crew Safe Make Installation Safe Mitigate Pollution		Initiate Down manning (Refer To Emergency Response Manual) Muster in TR Prepare For Evacuation Assess Damage Check Stability Carry Out Ballasting/De- Ballasting Identify Leaking Tank Possible Fuel Transfer Identify Assistance Review Tides/Weather	OIM OIM Barge Supv. Barge Supv Barge Supv. Barge Supv. OIM OIM
	MESSAGE TO		CONTENT	BY WHOM
PRIMARY REPORTS	Pan Message to Coast Station, VHF/MF Company Base Office/Rig Manager Satellite Tel/ Cell phone Operator Satellite Tel/Cell phone Flag State Authority / Port authorities		Situation Report Manning Injuries Assistance Situation Report Injuries Assistance Situation Report Injuries Assistance As Required By Legislation	R/O OIM Client Rep. OIM/Client rep
	MAIN ACTION		DETAILED ACTION	BY WHOM

REVISION NO:	0.0	FILE CODE	PAGE	OF
REVISION DATE:	1st Nov 2008	Aban – Pearl - 001	50	96

	ABAN PEARL – SOPEP - 001	SECTION:	03
		SUBSECTION:	na
REPORTING REQUIREMENTS			

NEXT ACTIONS	Down manning Takes Place Take Best Course To Safe Haven Maintain Emergency Status	Schedule Helicopters Assemble Crew Dispatch Crew Prepare For Relocation Monitor Hull Damage Monitor Weather Crew Mustered	R/O Medic Medic OIM Chief Mech. OIM OIM
	MESSAGE TO	CONTENT	BY WHOM
NEXT REPORTS	Company Base Office/Rig Manager Operator Flag State Authority / Port authorities	Situation Report Pollution FU Report Situation Report As Required By Legislation	OIM Client Rep. OIM/Client rep
	RECORDS OF	CONTENT	BY WHOM
RECORDS	All messages All actions	Callers and recipients On & concern	R/O Bar

3.5.14 Hazardous Vapor Release


The primary hazard associated with a vapor release is the safety of the crew and nearby vessels and or shore based personnel in flammable or toxic atmospheres.

It will therefore be the initial requirement of the OIM or PIC to:

1. Warn all persons make PA, sound the General Alarm.
2. Determine if any injuries have occurred.
3. Prepare evacuation if required.
4. If possible bring vessel with accommodation upwind
5. Safety Requirements including PPE, MSDS.

Hazardous Vapor Release			
	MAIN ACTION	DETAILED ACTION	BY WHOM
PRIMARY ACTIONS	Make Crew Safe Make Installation Safe	Initiate Down manning (Refer To Emergency Response Manual) Muster at alternate station Prepare For Evacuation – non essential personnel Shut down Ventilation system Secure Well Prepare & Pump Kill mud Review & check weather conditions	OIM OIM Chief Mech. OIM/TP/ Driller TP/ Driller Barge Supv
	MESSAGE TO	CONTENT	BY WHOM
PRIMARY REPORTS	Pan Message to Coast Station, VHF/MF Company Base Office/Rig Manager Satellite Tel/ Cell phone Operator Satellite Tel/Cell phone Flag State Authority / Port authorities	Situation Report Manning Injuries Assistance Situation Report Injuries Assistance Situation Report Injuries Assistance As Required By Legislation	R/O OIM Client Rep. OIM/Client rep
	MAIN ACTION	DETAILED ACTION	BY WHOM

REVISION NO:	0.0	FILE CODE	PAGE	OF
REVISION DATE:	1st Nov 2008	Aban – Pearl - 001	51	96

	ABAN PEARL – SOPEP - 001	SECTION:	03
		SUBSECTION:	na
REPORTING REQUIREMENTS			

NEXT ACTIONS	Down manning Takes Place Maintain Emergency Status	Schedule Helicopters Assemble Crew Dispatch Crew Prepare For Relocation Monitor Weather Crew Mustered	R/O Medic Medic OIM OIM OIM
	MESSAGE TO	CONTENT	BY WHOM
NEXT REPORTS	Company Base Office/Rig Manager Operator Flag State Authority / Port authorities	Situation Report Situation Report As Required By Legislation	OIM Client Rep. OIM/Client rep
	RECORDS OF	CONTENT	BY WHOM
RECORDS	All messages All actions	Callers and recipients On & concerning rig	R/O Barge Supv

3.5.15 Accidental Discharge due to any reason

Shored based spill response contractor will be contacted in advanced to mitigate any accidental discharge that may occur in the port visit.

Before the drilling unit makes any port call, the availability of shored based spill responses contractor will be ascertained by the barge master , and details of the contractors will be maintained.

The format for the details of shore based contractor maintained as per annex 7 (See annex)

3.6 Transfer of Bunker/Cargo - Lightening

If the rig has sustained extensive structural damage, it may be necessary to transfer all or part of the cargo/ bunker to another ship/rig.

In installation-to-Ship-transfer operations involving a specialized service ship, the Master of that rig 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/cargo transfer should be carried out in accordance with the requirements of the receiving installation.


In all cases each OIM remains responsible for the safety of his own ship/rig, 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 installation-to-Ship-transfer operations should be coordinated with the appropriate responsible local Authority.

When selecting the area of operation the OIM(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

REVISION NO:	0.0	FILE CODE	PAGE	OF
REVISION DATE:	1st Nov 2008	Aban – Pearl - 001	52	96

	ABAN PEARL – SOPEP - 001	SECTION:	03
		SUBSECTION:	na
REPORTING REQUIREMENTS			

- The sea area and depth of water, which should be sufficient for maneuvering 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 installation-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 Installation-to-Ship operations as aforementioned the OIMr should take note of supplemented instructions issued by the company

3.7 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/rig and its containment system has to be obtained. On the basis of the information the OIM can decide next actions for the protection of lives, the ship/Rig, the cargo and the environment.

The OIM 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.

Detailed information about the cargo, especially NLS cargo has to be available and to be referred to for further actions regarding the cargo.


In case of necessary movement of cargo within the ship careful consideration is to be given to hull strength and stability as well as to the compatibility of all material (cargo, tanks, coating, piping) in view of any transfer actions planned.

Plans/tables about the location and specification of the current cargo as well as bunkers and ballast have to be readily available.

3.8 Mitigating Activities

3.8.1 General

REVISION NO:	0.0	FILE CODE	PAGE	OF
REVISION DATE:	1st Nov 2008	Aban – Pearl - 001	53	96

	ABAN PEARL – SOPEP - 001	SECTION:	03
		SUBSECTION:	na
REPORTING REQUIREMENTS			

When the safety of the vessel and personnel has been addressed, the PIC can initiate mitigating activities according to the guidance given by the plan.

3.8.2 Assessment and monitoring activities

Upon notification of any spill, the OIM / MIC will evaluate the incident. The size of the spill (volume), type of product and the direction of the spill / slick movement will be addressed.

A rough estimate of the total volume of the spill is desirable; an estimate can be got by gauging / sounding the effected tanks. The same can also be done by determining the size of the slick and its colour on the water surface.

3.8.3 Personnel Protection Issues

Personnel safety is the primary concern during spill response operations. A site safety plan will be developed long with a spill response plan.

Personnel safety will be maintained by these incident specific procedures;

1) Safety of Personnel

- Warn all personnel in the area by verbal announcements, radio or other means.
- Eliminate ignition sources – All ignition sources should extinguished, hand held radios need to be intrinsically safe type. Availability of fire fighting equipment to be present near spill.
- Product Information – Refer to MSDS to determines personnel hazards, fire hazards and the extent of a safety zone for spilled content.
- Protective equipment (PPE) – With reference to the MSDS advises and enforces the use of the Personal Protective Equipment for the duties to be performed by personnel at the site.

2) Threat to Health & Safety


- In case of confined or continuous spills the threat of flammable vapors exists which can extend beyond the limits f the spill, these will persist until the spill has stopped or considerable weathering has occurred.
- Mobile equipment must be moved away and not started in these areas.
- Monitoring for toxic gases or vapors may be used using equipment carried on board.
- All situations involving injury or significant loss of material must be investigated; records of such incident must be maintained.
- All spills will be assessed by the Safety Manager or designated Representative as to possible environmental implications.

3.8.4 Containment, Isolation and Control Strategies

The primary strategy for responding to a discharge from a vessel is through the containment and recovery equipment maintained on board.

Each installation needs to have response equipment available at the work site at all times, response time for these resources is immediate upon notification of a discharge, weather / sea and other safety considerations allowing.

REVISION NO:	0.0	FILE CODE	PAGE	OF
REVISION DATE:	1st Nov 2008	Aban – Pearl - 001	54	96

	ABAN PEARL – SOPEP - 001	SECTION:	03
		SUBSECTION:	na
REPORTING REQUIREMENTS			

The crew under the supervision of the MIC will initiate the immediate response actions to maintain the spill on board; Isolation of the source, stopping the flow and preventing or control of any discharge is of prime importance.

- Close Valves and headers – stop transfer operations and pumps if applicable. Close all tank base valves and vessel transferring bulk valves as applicable.
- Employ Damage Control – Survey the extent and nature of the damage quickly and accurately.
- Piping Leaks – are not easily secured due to pressure involved. Slow/stop the flow of oil by wrapping the piping with neoprene or duct tape.
- Temporary patches – Some vessels carry suitable material for temporary patches for hull ruptures, depending on the location and extend of hull failure, some initial damage control can be initiated by the crew.
- Deploy Oil Absorbent Materials – pads, sweeps. Boom, baskets – can be used to clean up small spills and deck spills.

3.8.5 De-Contamination of personnel

Personnel and equipment leaving the spill safety zone must be thoroughly decontaminated.

- Stations need to be established for decontamination adjacent to the spill zone and laid out so that the personnel will pass through the station prior to leaving the contaminated area.

3.8.6 Disposal of removed oil and clean up materials

A variety of disposal methods can be used for both large and small spills including oil/water separation and re-cycling of the oil, incineration, burial and natural biodegradation. Waste handling procedures should be preceded by several steps with an overall objective of waste minimization, cost effectiveness, minimization of impact on unaffected areas or already cleaned areas, regulatory compliance, worker safety and proper disposal. Waste are characterized and segregated by type (oiled vs. non-oiled, liquid vs. solid) and divided into waste streams as they are generated so that they can be packaged, handled, stored and disposed appropriately.


3.9 Stability and Stress Considerations

3.9.1 General

Internal transfers should only be undertaken with a full appreciation of the likely impact on the Installations overall stress and stability.

While it is unlikely that any fuel transfers subsequent to hull damage would be out with the capability of the Installation staff to make the relevant calculations, in the event of advice being required this should be requested at the time of initial contact with the rig manager. The rig manager would then be in a position to access expertise within the Company or to request advice from one of the Company's engineering consultants.

REVISION NO:	0.0	FILE CODE	PAGE	OF
REVISION DATE:	1st Nov 2008	Aban – Pearl - 001	55	96

	ABAN PEARL – SOPEP - 001	SECTION:	03
		SUBSECTION:	na
REPORTING REQUIREMENTS			

In the event of water ingress to "normally" dry compartments i.e. the column compartments or the pontoon pump rooms, examples of damage stability calculations can be found in the Stability Manual. In the event of damage to these areas it is very unlikely that damage to fuel tanks, and hence the possible requirement to transfer fuel, will also occur.

When damage stability calculations are carried out attention should be given to the disposition of variable loads to avoid bending moments or shear forces. In general this can be achieved by maintaining a more or less symmetrical distribution, within the limitations imposed by the damage.

A Stability Load Summary is contained in Marine Operations Manual, together with the related stability curves for maximum allowable centre of gravity and minimum required metacentric height. The stability calculation is the responsibility of the OIM who will delegate the task to the Barge Supervisor.

3.9.2 Longitudinal Stress and Torsional Stress

In carrying out stability calculations in order to assess the capability of the Installation to remain stable within the criteria for damage stability either prior to the transfer of fuel, or as a consequence of ingress of water, it is un-necessary to consider longitudinal stress however torsional stress should be calculated and ascertained.

3.9.3 Damage Stability and related Calculations

When operating within the limits of KG as described in the operating manual the Installation has sufficient stability to withstand the flooding of any two compartments in any operating or transit condition, consistent with damage assumptions.

The final waterline after flooding, taking into account sinkage, trim and heel is below the lower edge of any opening through which progressive flooding may take place. The Installation's downflooding angle is 24.9° assuming a 15.2 meter draft and heeling moment due to a 50 m/s wind from any direction.

3.9.4 Stability Considerations as a Result of Grounding


In the event of mitigation being considered as a result of grounding the first action likely to be taken is "sounding around" to establish the situation of the Installation.

It is unlikely that fuel transfer will be considered for the reasons specified in Section 3.3.1 and any introduction of water into the hull will be considered only as a means of stabilizing the Installation on the seabed, hence there will be no necessity to consider stability at this time.

However the calculation of stability will be a necessary component of any plans to refloat the Installation, and at this time the effects of free surface, and the resulting trim and KG should be considered.

3.9.5 Stability Considerations as a Result of Collision

REVISION NO:	0.0	FILE CODE	PAGE	OF
REVISION DATE:	1st Nov 2008	Aban – Pearl - 001	56	96

	ABAN PEARL – SOPEP - 001	SECTION:	03
		SUBSECTION:	na
REPORTING REQUIREMENTS			

There is a remote possibility that one fuel tank might be ruptured due to collision, and the event being less than a life threatening situation. However, the more likely event is that peripheral tanks may be ruptured resulting in an ingress of water and a consequent requirement to make the Installation as safe as possible.

The first defence will be control of the flooding by means of the Installation pumps, and no credit is taken for this capability in the damage stability criteria.

The introduction of water into other tanks should be considered carefully and any intended action should be the subject of a stability calculation for the purposes of determining the resultant trim, the likely effect of free surface, and the final KG which should be measured against the damage stability curve.

3.9.6 Stability Considerations as a Result of Hull Failure

In the event of non-catastrophic hull failure it may reasonably be assumed that any ingress of water will be slow, and any possible leakage of fuel will be small. It is therefore likely that the control of the inflow can be effected by means of the Installation pumps, and the mitigation of pollution will be limited to the actions identified in Section 3.4.5

In either case there will be minimal changes to the calculated stability, although some consideration should be given to the possible effects of free surface.

Should the inflow of water be greater than the capability of the pumps or any action to correct trim be considered, then stability should be calculated with due regard for the change in trim and draft, the effects of free surface and the resulting KG.

3.9.7 Responsibilities for Calculation and Data Access


The responsibility for the calculation of stability lies with the OIM, though this plan indicates that the actual task should be carried out by the Barge Supervisor.

The necessary data, tables and instructions can be found in the Marine Operations Manual.

Damage Stability Curves and Stability Calculation sheets can be found in the Marine Operations Manual.

All necessary data should be retained in the emergency response centre which can be accessed by the technical advisers or Company's engineering consultants if the rig manager would request advice from one of the Company's engineering consultants. contact details for the technical advisers are given in the sec 6.3.1.


REVISION NO:	0.0	FILE CODE	PAGE	OF
REVISION DATE:	1st Nov 2008	Aban – Pearl - 001	57	96

	ABAN PEARL – SOPEP - 001	SECTION:	04
		SUBSECTION:	na
ORGANISATION OF RESPONSE			

CONTENTS

4.1	Guidance Requirements.....	59
4.2	General	59
4.3	Use of Dispersants	2
4.3.1	Use of Dispersants in Bombay High.....	3
4.4	Organisation of Response	3
4.4.1	Installation in Transit	3
4.4.2	Installation on Location	3

REVISION NO:	0.0	FILE CODE	PAGE	OF
REVISION DATE:	1 st Dec. 2008	Aban – Pearl - 001	58	96

	ABAN PEARL – SOPEP - 001	SECTION:	04
		SUBSECTION:	na
ORGANISATION OF RESPONSE			

1.4 Guidance Requirements

National and local co-ordination: Quick, efficient co-ordination between the vessel and coastal state or other involved parties becomes vital in mitigating the effects of a pollution incident. The plan should address the need to contact the coastal State for authorisation prior to undertaking mitigating action.

The identities and roles of various national and local authorities involved vary widely from State to state and even from port to port. Approaches to responsibility for discharge response also vary. Some coastal States have agencies that take charge of response immediately and subsequently bill the owner for the cost. In other coastal States, responsibility for initiating response is placed on the ship owner. In the case of the latter the Plan will require greater detail and guidance to assist the OIM/MIC with organising this response.

1.5 General

Local co-ordination, even if no action is immediately taken from the shore is relatively straightforward since the contacts with local authorities should be kept simple, and support from the Aban Company shore bases is not in question. However in some other areas of the globe, just as the possibility of organized response is reduced, similarly the capability of the OIM to achieve some response himself is reduced

Despite the requirement to report, little lasting damage to the environment is likely to result from a discharge of rig fuel, diesel, and the best action will be to allow the oil to disperse naturally. This limits the necessary action under certain circumstances, such as when the Installation is in transit.

When the Installation is on location there is the possibility of discharge of crude oil under the circumstances described in the previous sections. In these cases, should co-ordination not be possible from the shore the Installation OIM is in a position to call on the resources of the Operator by enlisting the co-operation of the Operator's On Board Representative.

1.6 Use of Dispersants


It is to be assumed that all coastal States have agencies from which authorisation must be obtained before using dispersants. In the event of failure to contact such an agency then dispersant should not be used.

4.4 Organisation of Response

1.6.1 Installation in Transit

An oil spill while the Installation is in transit will be limited to rig fuel, which is diesel.

REVISION NO:	0.0	FILE CODE	PAGE	OF
REVISION DATE:	1 st Dec. 2008	Aban – Pearl - 001	59	96

	ABAN PEARL – SOPEP - 001	SECTION:	04
		SUBSECTION:	na
ORGANISATION OF RESPONSE			

If the Installation is in transit on an ocean voyage, it is unlikely that mitigating action will be possible unless it is within close proximity to a coastal State.

Serious structural problems will in any case involve contact with the nearest coast station, and with the Company base office, from which the organisation of any response is likely to follow. Minor spills will require no action further than reporting.

The spill should be reported through the Company Office. It is generally recognised that mechanical recovery systems would be ineffective and that the use of dispersant would probably be more disadvantageous to the environment than allowing the spill to disperse naturally.

However, if this is the agreed philosophy for the incident, it may be acceptable for the Installation to direct any accompanying vessels to break up the spill by means of steaming back and forth through it.

1.6.2 Installation on Location

The possible types of spill on location originating with the Installation's onboard products involve rig fuel, oil based mud or base oil.

In the case of OBM no action is likely to be possible since the product is essentially heavier than water so that very little trace will remain on the surface in the event of a spill.


Rig fuel or base oil will be dealt with in the same manner as rig fuel spilt in transit.

There remains the possibility of crude oil discharge due to blow-out. The only way in which this situation will be dealt with is mobilisation of assistance from the shore, and this mobilisation will be carried out through the Operator.

The communication path may be through the Rig Manager to the Clients Office or through the Clients Representative to the Clients Office, or possibly in some areas direct from the Clients Representative to the authority concerned with pollution and pollution control.


In the event that none of these paths of communication are effective it seems likely that no form of pollution control is going to be available, so it would seem appropriate for the Installation staff to concentrate on other matters and wait for outside communication relating to any environmental considerations.

REVISION NO:	0.0	FILE CODE	PAGE	OF
REVISION DATE:	1 st Dec. 2008	Aban – Pearl - 001	60	96

	ABAN PEARL – SOPEP - 001	SECTION:	04
		SUBSECTION:	na
ORGANISATION OF RESPONSE			

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REVISION NO:	0.0	FILE CODE	PAGE	OF
REVISION DATE:	1 st Dec. 2008	Aban – Pearl - 001	61	96

	ABAN PEARL – SOPEP - 001	SECTION:	05
		SUBSECTION:	na
ADDITIONAL INFORMATION			

CONTENTS

5.1 PLAN REVIEW PROCEDURES..... 59


5.2 TRAINING AND DRILL PROCEDURES..... 2

5.3 RECORD KEEPNG PROCEDURES 2

5.4 COMPANY PUBLIC AFFIRS POLICY 2

5.5 TECHNICAL
ADVISERS..... 2

REVISION NO:	0.0	FILE CODE	PAGE	OF
REVISION DATE:	1 st Dec. 2008	Aban - Pearl - 001	62	96

	ABAN PEARL – SOPEP - 001	SECTION:	05
		SUBSECTION:	na
ADDITIONAL INFORMATION			

5.1 Plan Review Procedure

The Shipboard Oil Pollution Emergency Plan will be reviewed in conjunction with the Rig Emergency Response Manual, and as appropriate as part of the Aban Singapore Pte Ltd. Management System.

Under this system any manual or plan can be reviewed on the basis of information received from any source, and therefore Company employees are encouraged to put forward possible improvements.

In addition the plan will be updated in the event that drills or actual incidents reveal any deficiencies in the procedures.

Apart from any of the above the plan will be reviewed annually by the Company, and should any changes be made they will be included and distributed through the Document Administration Section.

5.2 Training and Drill Procedures

Training in the use of the Shipboard Oil Pollution Emergency Plan is incorporated within the rig's offshore drills and exercises. These are carried out at predetermined intervals, as per the rig's training matrix.

Training records are maintained both on and offshore.

5.3 Record Keeping Procedures

Aban Singapore Pte Ltd. procedures require that records be kept of actions taken and any messages passed during emergency situations.


This Plan requires that the Radio Operator logs all messages together with the names of the caller and the recipient. The majority of the Installation communications equipment is to be found within the Radio Room; however the Radio Operator should maintain a watch on the VHF and UHF Channels in use in order to monitor communications which may take place out with the Radio Room.

This plan also requires that the Barge Supervisor maintains a record of actions taken, and for this purpose the Installation Log Book should be used. This activity is standard marine practice, however the OIM should be aware that should the Barge Supervisor be required to carry out some activity which requires him move away from the Control Centre, then either he himself or some other detailed person will be required to maintain the record of actions.

5.4 Company Public Affairs Policy

Under no circumstances are statements or comments to be made to the press or any other third party except by the Press Officer or Company Spokesperson. All calls and enquiries should be directed to the Press Officer.

REVISION NO:	0.0	FILE CODE	PAGE	OF
REVISION DATE:	1 st Dec. 2008	Aban - Pearl - 001	63	96


	ABAN PEARL – SOPEP - 001	SECTION:	05
		SUBSECTION:	na
ADDITIONAL INFORMATION			

5.5 Technical advisors

The list of shored based technical advisors are placed at annex 6.3.1

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REVISION NO:	0.0	FILE CODE	PAGE	OF
REVISION DATE:	1 st Dec. 2008	Aban - Pearl - 001	64	96

	ABAN PEARL - SOPEP - 001	SECTION:	06
		SUBSECTION:	Na
APPENDICES			

CONTENTS

6.1	APPENDIX 1 – LIST OF COASTAL STATE CONTACTS.....	66
6.2	APPENDIX 2 – LIST OF PORT CONTACTS.....	2
6.3	APPENDIX 3 - LIST OF SHIP INTEREST CONTACTS.....	3
6.3.1	Venezuela Emergency Call out.....	3
6.3.2	Dragon Field	3
6.3.3	Coast Guard Dragon Field	3
6.3.4	Aban Offices	3
6.4	Appendix 4 - ESSENTIAL PERSONNEL.....	4
6.5	Appendix 5 - GUIDANCE FOR MARINE OPERATIONS	4
6.6	Appendix 6 - STABILITY INFORMATON.....	5
6.6.1	Intact Stability	5
6.6.2	Principal Stability.....	5
6.6.3	Damage Stability.....	5
6.7	Appendix 7 - LOCAL INFORMATION FORM	7
6.8	Appendix 8 - IMO resolution A 851 (20).....	8

REVISION NO:		FILE CODE	PAGE	OF
REVISION DATE:	1st Dec. 2008	Aban – Pearl - 001	65	96

	ABAN PEARL - SOPEP - 001	SECTION:	06
		SUBSECTION:	Na
APPENDICES			

6.1 APPENDIX 1 – LIST OF COASTAL STATE CONTACTS

Coastal state contacts are contained in the Appendix to IMO Publication IMO-516E "Reporting of Incidents Involving Harmful Substances". Coastal state contacts for the rest of the world are contained in the Appendix to IMO Publication MSC-MEPC. 6/Circ 4. dated 30 JUNE 2008 "National Contact Points for Safety and Pollution Prevention".

The list of National Operational Contact is also available on the internet as follows <http://www.imo.org> (select 'IMO Circulars/Contact points' or 'National Contacts').


List of National operational contact points responsible for the receipt, Transmission, and Processing of urgent reports on Incidents involving harmful substances, including oil from ships to coastal states

The list as applicable from time to time will be reviewed and amended by the Barge Master.

6.2 APPENDIX 2 – LIST OF PORT CONTACTS

List of the Port Contacts is attached.

REVISION NO:		FILE CODE	PAGE	OF
REVISION DATE:	1st Dec. 2008	Aban – Pearl - 001	66	96

	ABAN PEARL - SOPEP - 001	SECTION:	06
		SUBSECTION:	Na
APPENDICES			

6.3 APPENDIX 3 - LIST OF SHIP INTEREST CONTACTS

6.3.1 Venezuela Emergency Call-Out

NAME	TITLE	LOCATION	CONTACT NUMBERS
	Operations Mgr	Venezuela	ce:
	Manager	Venezuela	ce:
	ral Manager	Venezuela	ce:
	ations Manager	Venezuela	ce:
	E Manager	Venezuela	ce:

6.3.2 Dragon Field

Emergency Oil Spill Contact

Title :	Location:	Contact :
		+ + +

6.3.3 Coast Guards Dragon Field

Coast Guard Regional Head Quarters,


Location :	Contacts:
	+ + +

6.3.4 Aban Offices

Carupano

Aban Singapore Pte Ltd

REVISION NO:		FILE CODE	PAGE	OF
REVISION DATE:	1st Dec. 2008	Aban – Pearl - 001	67	96

	ABAN PEARL - SOPEP - 001	SECTION:	06
		SUBSECTION:	Na
APPENDICES			

Carupano
Venezuela
Tel no. +
Fax no. +

In addition to this information the offshore Installations are updated weekly with a Call Out sheet which contains all Manager's Mobile Phone and/or beeper/radio pager numbers where applicable.

Aban Singapore Pte Ltd

6, Temasek Boulevard
28-01 to 05 Suntec Tower Four,
Singapore 038986

Main Tel: (65) 6294 6364
Emergency Contact: (65) 9726 6662
Conference Room: (65) 6294 6364 Ext 325

In addition to this information the Singapore Office contact list is available with updated Regional Contact numbers.

6.4 ESSENTIAL PERSONNEL

The essential personnel lists are maintained in the Emergency Response Manual for the Aban Pearl .

6.5 GUIDANCE FOR MARINE OPERATIONS

Suitable guidance for marine operations such as changes of status from transit to on location is contained in the Aban Management System.

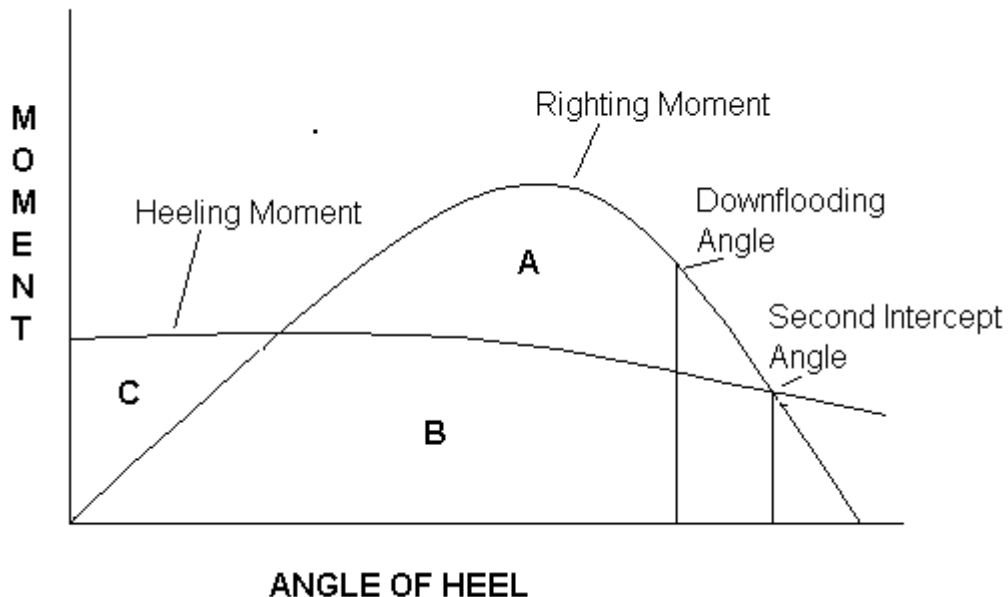
REVISION NO:		FILE CODE	PAGE	OF
REVISION DATE:	1st Dec. 2008	Aban – Pearl - 001	68	96

APPENDICES

6.6 APPENDIX 6 – STABILITY INFORMATION


6.6.1 Intact Stability

- a. The area under the righting moment curve to the angle of down flooding or the second intercept, whichever is less, should not be less than 30% in excess of the area under the wind heeling moment curve to the same limiting angle.
- b. The righting moment curve should be positive over the entire range of angles from upright to the second intercept.
- c. Wind forces of 100 knots and 70 knots have been considered.



6.6.2 Principal Results

REVISION NO:		FILE CODE	PAGE	OF
REVISION DATE:	1st Dec. 2008	Aban – Pearl - 001	69	96

	ABAN PEARL - SOPEP - 001	SECTION:	06
		SUBSECTION:	Na
APPENDICES			


Ballasting curves have been determined that satisfy relevant minimum, intact and damage stability requirements and also the latest UK DTp and HSE Guidelines and draft retrospective guidelines.

6.6.3 Damage Stability

When operating within the limits of KG as proscribed for the Aban Pearl the Installation has sufficient stability to withstand the flooding of any one compartment in any operating or transit condition, consistent with damage assumptions.

1. The waterline in the final state of equilibrium after single compartment flooding, taking into account the effect of wind, should be at least 4m below the lower edge of any opening which might lead to progressive flooding of compartments assumed intact in the calculations. These include air pipes, chain lockers, etc.
2. In the above mentioned state of equilibrium the angle of inclination shall never exceed
15⁰(UKHSE) or 17⁰(NMD) in any direction.
3. The area under the righting moment curve shall be at least equal to the area under the inclining moment curve up to the "second intercept" of the curves. Both these areas shall be calculated from the static angle of inclination without wind.
4. The possibility of reducing angles of inclination by counter flooding arrangements, by emptying ballast tanks or by taking into account mooring forces, etc. shall not be taken into consideration for the purpose of complying with the requirements laid down in sections 1 to 3 above (inclusive).

REVISION NO:		FILE CODE	PAGE	OF
REVISION DATE:	1st Dec. 2008	Aban – Pearl - 001	70	96

	ABAN PEARL - SOPEP - 001	SECTION:	06
		SUBSECTION:	Na
APPENDICES			

6.7 APPENDIX 6 - LOCAL INFORMATION FORM


INSTALLATION	
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LOCATION	COUNTRY	FIELD NAME	CO-ORDINATES	
			LAT	LONG

AUTHORITY	NAME	VHF CHANNEL	TEL. NUMBER
COAST STATION			
PORT CONTROL			
LOCAL ENVIRONMENT			
ANTI-POLLUTION			
OTHERS			
	NAME	ADDRESS	TEL.NO'S
BASE OFFICE			
OPERATOR			
P&I CORRESPONDENT			


REMARKS	Once completed this form should be copied to the Installation and the local shore base office. They should transcribe the information onto their documents and the details added to Appendix 1 at the annual review.
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REVISION NO:		FILE CODE	PAGE	OF
REVISION DATE:	1st Dec. 2008	Aban – Pearl - 001	71	96

	ABAN PEARL - SOPEP - 001	SECTION:	06
		SUBSECTION:	Na
APPENDICES			


6.8 APPENDIX 8 – IMO RESOLUTION A 851 (20).

REVISION NO:		FILE CODE	PAGE	OF
REVISION DATE:	1st Dec. 2008	Aban – Pearl - 001	72	96

	ABAN PEARL - SOPEP - 001	SECTION:	06
		SUBSECTION:	Na
APPENDICES			

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REVISION NO:		FILE CODE	PAGE	OF
REVISION DATE:	1st Dec. 2008	Aban – Pearl - 001	73	96

	ABAN PEARL – SOPEP - 001	SECTION:	07
		SUBSECTION:	na
DRAWINGS AND DIAGRAMS			


CONTENTS

7.1 DRAWINGS AND DIAGRAMS.....1

The following Drawings & diagrams form a part of and should be retained with this Plan in The Control Room:


No	Drawing Description	Drawing Reference
1.	General Arrangement, Upper Deck	
2.	General Arrangement, Main Deck	
3.	General Arrangement, Longitudinal Profile (Starboard Side)	
4.	General Arrangement, Midship Section (View Looking Forward)	
5.	General Arrangement, Aft Elevation (View Looking Forward)	
6.	General Arrangement, Helicopter Deck	

REVISION NO:	0.0	FILE CODE	PAGE	OF
REVISION DATE:	1 st Dec. 2008	Aban – Pearl - 001	74	96

	ABAN PEARL – SOPEP - 001	SECTION:	07
		SUBSECTION:	na
DRAWINGS AND DIAGRAMS			

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REVISION NO:	0.0	FILE CODE	PAGE	OF
REVISION DATE:	1 st Dec. 2008	Aban – Pearl - 001	75	96

	ABAN PEARL – SOPEP - 001	SECTION:	08
		SUBSECTION:	na
ANNEX			

CONTENTS

8.1	REPORTING OF INCIDENTS INVOLVING HARMFUL SUBSTANCES UNDER MARPOL 73/78	77
8.2	Article 8 of the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto	77
8.2.1	Article 8: Reports on incidents involving harmful substances	77
8.3	Annex: Amendments to the Annex of the Protocol of 1978 Relating to the International Convention for the Prevention of Pollution from Ships, 1973	77
8.3.1	Protocol 1	77
8.3.1.1	Article 1: Duty to Report	79
8.3.1.2	Article II: When to make Reports	79
8.3.1.3	Article 3: Contents of Report	79
8.3.1.4	Article 4: Supplementary Report	80
8.3.1.5	Article 5: Reporting Procedures	80
8.4	Annex: General Principles for Ship Reporting Systems and Ship Reporting Requirements, including Guidelines for Reporting Incidents involving Dangerous Goods, Harmful Substances and/or Marine Pollutants	80
8.4.1	General Principles	80
8.4.2	Guidelines for Reporting Incidents Involving Dangerous Goods	82
8.4.3	Guidelines for Reporting Incidents Involving Harmful Substances and/or Marine Pollutants	82
8.5	APPENDIX	84
8.5.1	PROCEDURES	84
8.5.1.1	Sailing plan (SP)	84
8.5.1.2	Position report (PR)	84
8.5.1.3	Deviation report (DR)	84
8.5.1.4	Final report (FR)	84
8.5.1.5	Dangerous goods report (DG)	84
8.5.1.6	Harmful substances report (HS)	84
8.5.1.7	Marine pollutants report (MP)	84
8.5.1.8	Any other report	84
8.5.2	STANDARD REPORTING FORMAT AND PROCEDURES	84
8.5.3	GUIDELINES FOR DETAILED REPORTING REQUIREMENTS	88
8.5.3.1	Dangerous goods reports (DG)	88
8.5.3.2	Harmful substances reports (HS)	89
8.5.3.3	Marine pollutants reports (MP)	90
8.5.3.4	Probability of discharge	91

REVISION NO:		FILE CODE	PAGE	OF
REVISION DATE:	1 st Dec. 2008	Aban – Pearl - 001	76	96

	ABAN PEARL – SOPEP - 001	SECTION:	08
		SUBSECTION:	na
ANNEX			

1.7 REPORTING OF INCIDENTS INVOLVING HARMFUL SUBSTANCES UNDER MARPOL 73/78

The following reproduction of sections of “REPORTING OF INCIDENTS INVOLVING HARMFUL SUBSTANCES UNDER MARPOL 73/78” (IMO 516E) is done with the permission of Harald Grell Head of Publishing Services at IMO.

1.8 Article 8 of the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto

1.8.1 Article 8: Reports on incidents involving harmful substances

1. A report on an incident shall be made without delay to the fullest extent possible in accordance with the provisions of Protocol 1 to the present convention.
2. Each party to the Convention shall:
 - a) Make all arrangements necessary for an appropriate officer or agency to receive and process all reports on incidents; and
 - b) Notify the Organisation with complete details of such arrangements for circulation to other parties and member states of the Organisation.
3. Whenever a party receives a report under the provisions of the present article, that party shall relay the report without delay to:
 - a) The administration of the ship involved; and
 - b) Any other state which may be affected.
4. Each party to the convention undertakes to issue instructions to its maritime inspection vessels and aircraft and to other appropriate services, to report to its authorities any incident referred to in Protocol 1 to the present convention. That party shall, if it considers it appropriate, report accordingly to the organisation and to any other party concerned


1.9 Annex: Amendments to the Annex of the Protocol of 1978 Relating to the International Convention for the Prevention of Pollution from Ships, 1973

1.9.1 Protocol 1


Provisions Concerning Reports on Incidents Involving Harmful Substances (In accordance with article 8 of the convention)

The existing text of Protocol 1 is replaced by the following:

REVISION NO:		FILE CODE	PAGE	OF
REVISION DATE:	1 st Dec. 2008	Aban – Pearl - 001	77	96

	ABAN PEARL – SOPEP - 001	SECTION:	08
		SUBSECTION:	na
ANNEX			

REVISION NO:		FILE CODE	PAGE	OF
REVISION DATE:	1 st Dec. 2008	Aban – Pearl - 001	78	96

	ABAN PEARL – SOPEP - 001	SECTION:	08
		SUBSECTION:	na
ANNEX			

1.9.1.1 Article 1: Duty to Report

1. The master or other person having charge of any ship involved in an incident referred to in article II of this Protocol shall report the particulars of such incident without delay and to the fullest extent possible in accordance with the provisions of this Protocol.
2. In the event of the ship referred to in paragraph (1) of this article being abandoned, or in the event of a report from such a ship being incomplete or unobtainable, the owner, charterer, manager or operator of the ship, or their agent shall, to the fullest extent possible, assume the obligations placed upon the master under the provisions of this Protocol.

1.9.1.2 Article II: When to make Reports


1. The report shall be made when an incident involves:
 - a) A discharge or probable discharge of oil, or noxious liquid substances carried in bulk, resulting from damage to the ship or its equipment, or for the purpose of securing the safety of a ship or saving life at sea.
 - b) A discharge or probable discharge of harmful substances in packaged form, including those in freight containers, portable tanks, road and rail vehicles and ship borne barges.
 - c) A discharge during the operation of the ship of oil or noxious liquid substances in excess of the quantity or instantaneous rate permitted under the present convention.
2. For the purpose of this Protocol:
 - a) "Oil" referred to in subparagraph (a) of this article means oil as defined in regulation 1(1) of Annex I of the convention.
 - b) "Noxious Liquid Substances" referred to in subparagraph 1(a) of this article means noxious liquid substances as defined in regulation 1 (6) of Annex II of the convention.
 - c) "Harmful Substances" in packaged form referred to in subparagraph 1(b) of this article means substances which are identified as marine pollutants in the International Maritime Dangerous Goods Code (IMDG Code).

1.9.1.3 Article 3: Contents of Report

Reports shall in any case include:

- a) Identity of ships involved.
- b) Time, type and location of incident.
- c) Quantity and type of harmful substance involved.
- d) Assistance and salvage measures.

REVISION NO:		FILE CODE	PAGE	OF
REVISION DATE:	1 st Dec. 2008	Aban – Pearl - 001	79	96

	ABAN PEARL – SOPEP - 001	SECTION:	08
		SUBSECTION:	na
ANNEX			

1.9.1.4 Article 4: Supplementary Report

Any person who is obliged under the provisions of this Protocol to send a report shall, when possible:

- a) Supplement the initial report, as necessary, and provide information concerning further developments.
- b) Comply as fully as possible with requests from affected States for additional information.

1.9.1.5 Article 5: Reporting Procedures


1. Reports shall be made by the fastest telecommunications channels available with the highest possible priority to the nearest coastal State.
2. In order to implement the provisions of this Protocol, Parties to the present Convention shall issue, or cause to be issued, regulations or instructions on the procedures to be followed in reporting incidents involving harmful substances, based on guidelines developed by the Organisation.

1.10 Annex: General Principles for Ship Reporting Systems and Ship Reporting Requirements, including Guidelines for Reporting Incidents involving Dangerous Goods, Harmful Substances and/or Marine Pollutants

1.10.1 General Principles


1. Ship reporting systems and reporting requirements are used to provide, gather or exchange information through radio reports. The information is used to provide data for many purposes including search and rescue, vessel traffic services, weather forecasting and the prevention of marine pollution. Ship reporting systems and reporting requirements should as far as practicable comply with the following principles:
 - 1.1 Reports should contain only information essential to achieve the objectives of the system.
 - 1.2 Reports should be simple and use the standard international ship reporting format and procedures; where language difficulties may exist, the language used should include English, using where possible the Standard Marine Navigational Vocabulary, or alternatively the International Code of Signals. The standard reporting format and procedures to be used are given in the appendix to this Annex (Refer to the copy of booklet attached).
 - 1.3 The number of reports shall be kept to a minimum.
 - 1.4 No charge shall be made for the communication of reports.

REVISION NO:		FILE CODE	PAGE	OF
REVISION DATE:	1 st Dec. 2008	Aban – Pearl - 001	80	96

	ABAN PEARL – SOPEP - 001	SECTION:	08
		SUBSECTION:	na
ANNEX			

- 1.5 Safety or pollution related reports should be made without delay, however, the time and place of making non-urgent reports should be sufficiently flexible to avoid interference with essential navigational duties.
- 1.6 Information obtained from the system should be made available to other systems when required for distress, safety and pollution purposes.
- 1.7 Basic information (ship's particulars, on-board facilities and equipment etc.) should be reported once, be retained in the system and be updated by the ship when changes occur in the basic information reported.
- 1.8 The purpose of the system should be clearly defined.
- 1.9 Governments establishing a ship reporting system should notify mariners of full details of the requirements to be met and the procedures to be followed. Details of types of ships and areas of applicability of times and geographical positions for submitting reports, of shore establishments responsible for operation of the system and of services provided should be clearly specified. Chartlets depicting boundaries of the system and providing other necessary information should be made available to mariners.
- 1.10 The establishment and operation of a ship reporting system should take into account:
 - 1.10.1 International as well as national responsibilities and requirements.
 - 1.10.2 The cost to ship operators and responsible authorities.
 - 1.10.3 Navigational hazards.
 - 1.10.4 Existing and proposed aids to safety.
 - 1.10.5 The need for early and continuing consultation with interested parties including a sufficient period to allow for trial, familiarisation and assessment to ensure satisfactory operation and to allow necessary changes to be made to the system.
- 1.11 Governments should ensure that shore establishments responsible for operation of the system are manned by properly trained persons.
- 1.12 Governments should consider the interrelationship between ship reporting systems and other systems.
- 1.13 Ship reporting systems should preferably use a single operating radio frequency; where additional frequencies are necessary, the number of frequencies should be restricted to the minimum required for effective operation of the system.

REVISION NO:		FILE CODE	PAGE	OF
REVISION DATE:	1 st Dec. 2008	Aban – Pearl - 001	81	96

	ABAN PEARL – SOPEP - 001	SECTION:	08
		SUBSECTION:	na
ANNEX			

- 1.14 Information provided by the system to ships should be restricted to that necessary for the proper operation of the system and for safety.
- 1.15 Ship reporting systems and requirements should provide for special reports from ships concerning defects or deficiencies with respect to their hull, machinery, equipment or manning, or concerning other limitations, which could adversely affect navigation, and for special reports concerning incidents of actual or probable marine pollution.
- 1.16 Governments should issue instructions to their shore establishments responsible for the operation of ship reporting systems to ensure that any reports involving pollution, actual or probable, are relayed without delay to the officer or agency nominated to receive and process such reports, and to ensure that such an officer or agency relays these reports without delay to the flag State of the ship involved and to any other State which may be affected.
- 1.17 States which are affected or likely to be affected by pollution incidents and may require information relevant to the incident should take into account the circumstances in which the Master is placed, and should endeavour to limit their requests for additional information.
- 1.18 The appendix to this Annex does not apply to danger messages referred to under V/2 of the 1974 SOLAS Convention, as amended. The present practice of transmitting such messages should remain unchanged.


1.10.2 Guidelines for Reporting Incidents Involving Dangerous Goods

1. The intent of these Guidelines and those contained in the appendix is to enable coastal states and other interested parties to be informed without delay when any incident occurs involving the loss, or likely loss, overboard of packaged dangerous goods into the sea.
2. Reports should be transmitted to the nearest coastal state. When the ship is within or near an area for which a ship reporting system has been established, reports should be transmitted to the designated shore station of that system.

1.10.3 Guidelines for Reporting Incidents Involving Harmful Substances and/or Marine Pollutants

1. The intent of these Guidelines and those contained in the appendix is to enable coastal states and other interested parties to be informed without delay of any incident giving rise to pollution or threat of pollution, of the marine environment, as well as of assistance and salvage measures, so that appropriate action may be taken.
2. In accordance with article V(1) of Protocol 1 of Marpol 73/78, a report shall be made to the nearest coastal State.
3. Whenever a ship is engaged in or requested to engage in an operation to render assistance to or undertake salvage of a ship involved in an incident referred to in


REVISION NO:		FILE CODE	PAGE	OF
REVISION DATE:	1 st Dec. 2008	Aban – Pearl - 001	82	96

	ABAN PEARL – SOPEP - 001	SECTION:	08
		SUBSECTION:	na
ANNEX			

subparagraph 1(a) or (b) of article II of Protocol I of Marpol 73.78, as amended, the master of the former ship should report, without delay, the particulars of the action taken or planned. The coastal States should also be kept informed of developments.

4. The probability of a discharge resulting from damage to the ship or its equipment is a reason for making a report.

REVISION NO:		FILE CODE	PAGE	OF
REVISION DATE:	1 st Dec. 2008	Aban – Pearl - 001	83	96

	ABAN PEARL – SOPEP - 001	SECTION:	08
		SUBSECTION:	na
ANNEX			

1.11 APPENDIX

1.11.1 PROCEDURES

Reports should be sent as follows:

1.11.1.1 Sailing plan (SP)

Before or as near as possible to the time of departure from a port within a system or when entering the area covered by a system.

1.11.1.2 Position report (PR)

When necessary to ensure effective operation of the system.

1.11.1.3 Deviation report (DR)

When the ship's position varies significantly from the position that would have been predicted from previous reports, when changing the reported route, or as decided by the master.

1.11.1.4 Final report (FR)

On arrival at destination and when leaving the area covered by a system.

1.11.1.5 Dangerous goods report (DG)

When an incident takes place involving the loss or likely loss overboard of packaged dangerous goods, including those in freight containers, portable tanks, road and rail vehicles and ship borne barges, into the sea.

1.11.1.6 Harmful substances report (HS)

When an incident takes place involving the discharge or probable discharge of oil (Annex I of MARPOL 73/78) or noxious liquid substances in bulk (Annex II of MARPOL 73/78)

1.11.1.7 Marine pollutants report (MP)

In the case of loss or likely loss overboard of harmful substances in packaged form, including those in freight containers, portable tanks, road and rail vehicles and ship borne barges, identified in the International Maritime Dangerous Goods Code as marine pollutants (Annex III of MARPOL 73/78).

1.11.1.8 Any other report


Any other report should be made in accordance with the system procedures as notified in accordance with paragraph 9 of the General Principles.

1.11.2 STANDARD REPORTING FORMAT AND PROCEDURES

2.1 Sections of the ship reporting formats which are inappropriate should be omitted from the report.

Where language difficulties may exist, the languages used should include English, using where possible the Standard Marine Navigational Vocabulary. Alternatively, the International Code of Signals may be used to send detailed information. When the


REVISION NO:		FILE CODE	PAGE	OF
REVISION DATE:	1 st Dec. 2008	Aban – Pearl - 001	84	96

	ABAN PEARL – SOPEP - 001	SECTION:	08
		SUBSECTION:	na
ANNEX			

International Code is used, the appropriate indicator should be inserted in the text, after the alphabetical index.


For route information, latitude and longitude should be given for each turn point, expressed as in C below, together with type of intended track between these points, for example “RL” (rhumb line), “GC” (great circle) or “coastal”, or, in the case of coastal sailing, the estimated date and time of passing significant points expressed by a 6-digit group as in B below.

REVISION NO:		FILE CODE	PAGE	OF
REVISION DATE:	1 st Dec. 2008	Aban – Pearl - 001	85	96

	ABAN PEARL – SOPEP - 001	SECTION:	08
		SUBSECTION:	na
ANNEX			


Telegraphy	Telephone (alternative)	Function	Information required
Name of system (e.g. AMVER/ AUSREP/ MAREP/ ECAREG/ JASREP)	Name of system (e.g. AMVER/ AUSREP/ MAREP/ ECAREG/ JASREP)	System identifier	Ship reporting system or nearest appropriate coast radio station
	State in full	Type of report	Type of report:
	SP		Sailing plan
	PR		Position report
	DR		Deviation report
	FR		Final report
	DG		Dangerous goods report
	HS		Harmful substances report
	MP		Marine pollutants report
	Give in full		Any other report
A	Ship (alpha)	Ship	Name, call sign or ship station identity, and flag
B	Time (bravo)	Date and time of event	A 6-digit group giving day of month (first two digits), hours and minutes (last four digits). If other than UTC, state time zone used
C	Position (Charlie)	Position	A 4-digit group giving latitude in degrees and minutes suffixed with N (north) or S (south) and a 5-digit group giving longitude in degrees and minutes suffixed with E (east) or W (west; or)
D	Position (delta)	Position	True bearing (first 3 digits) and distance (state distance) in nautical miles from a clearly identified land mark (state landmark)
E	Course (echo)	True course	A 3-digit group
F	Speed (foxtrot)	Speed in knots and tenths of knots	A 3-digit group
G	Departed (golf)	Port of departure	Name of last port of call
H	Entry (hotel)	Date, time and point of entry into system	Entry time expressed as in (B) and entry position expressed as in (C) or (D)
I	Destination and ETA (India)	Destination and expected time of	Name of port and date and time group expressed as in (B)

REVISION NO:		FILE CODE	PAGE	OF
REVISION DATE:	1 st Dec. 2008	Aban – Pearl - 001	86	96

	ABAN PEARL – SOPEP - 001	SECTION:	08
		SUBSECTION:	na
ANNEX			

arrival			
J	Pilot (Juliet)	Pilot	State whether a deep-sea or local pilot is on board
K	Exit (kilo)	Date, time and point of exit from system or arrival at the ship's destination	Exit time expressed as in (B) and exit position expressed as in (C) or (D)
L	Route (lima)	Route information	Intended track
M	Radio-communication (mike)	Radio-communication	State in full names of stations/frequencies guarded
N	Next report (November)	Time of next report	Date and time group expressed as in (B)
O	Draught (Oscar)	Maximum present static draught in metres	4-digit group giving metres and centimetres
P	Cargo (papa)	Cargo on board	Cargo and brief details of any dangerous cargoes as well as harmful substances and gases that could endanger persons or the environment (See detailed reporting requirements)
Q	Defect, damage, deficiency, Limitations (Quebec)	Defects/ Damage/ Deficiencies/ other limitations	Brief details of defects, damage, deficiencies or other limitations (See detailed reporting requirements)
R	Pollution/ dangerous goods lost overboard (Romeo)	Description of pollution or dangerous goods lost overboard	Brief details of type of pollution (oil, chemicals, etc.) or dangerous goods lost overboard; position expressed as in (C) or (D) (See detailed reporting requirements)
S	Weather (sierra)	Weather conditions	Brief details of weather and sea conditions prevailing
T	Agent (tango)	Ship's representative and/or owner	Details of name and particulars of ship's representative or owner or both for provision of information (See detailed reporting requirements)
U	Size and type (uniform)	Ship size and type	Details of length, breadth, tonnage, and type, etc., as required
V	Medic (victor)	Medical personnel	Doctor, physician's assistant, nurse, personnel without medical training
W	Persons (whiskey)	Total number of persons on board	State number
X	Remarks (x-ray)	Miscellaneous	Any other information - including, as appropriate, brief details of incident and of other ships involved either in incident, assistance or salvage (See

REVISION NO:		FILE CODE	PAGE	OF
REVISION DATE:	1 st Dec. 2008	Aban – Pearl - 001	87	96

	ABAN PEARL – SOPEP - 001	SECTION:	08
		SUBSECTION:	na
ANNEX			

			detailed reporting requirements)
Y	Relay (Yankee)	Request to relay report to another system, e.g., AMVER, AUSREP, JASREP, MAREP, etc.	Content of report
Z	End of report (Zulu)	End of report	No further information required

1.11.3 GUIDELINES FOR DETAILED REPORTING REQUIREMENTS

1.11.3.1 Dangerous goods reports (DG)

3.1.1 Primary reports should contain items A, B, C (or D), M, Q, R, S, T, U, X of the standard reporting format; details for R should be as follows:


- R
- 1 Correct technical name or names of goods.
 - 2 UN number or numbers.
 - 3 IMO hazard class or classes.
 - 4 Names of manufacturers of goods when known, or consignee or consignor.
 - 5 Types of packages, including identification marks. Specify whether portable tank or tank vehicle, or whether vehicle or freight container or other cargo transport unit containing packages. Include official registration marks and numbers assigned to the unit.
 - 6 An estimate of the quantity and likely condition of the goods.
 - 7 Whether lost goods floated or sank.
 - 8 Whether loss is continuing.
 - 9 Cause of loss.

3.1.2 If the condition of the ship is such that there is danger of further loss of packaged dangerous goods into the sea, items P and Q of the standard reporting format should be reported; details for P should be as follows:

- P
- 1 Correct technical name or names of goods.
 - 2 UN number or numbers.
 - 3 IMO hazard class or classes.
 - 4 Names of manufacturers of goods when known, or consignee or consignor.
 - 5 Types of packages, including identification marks. Specify whether portable tank or tank vehicle, or whether vehicle or freight container or other cargo transport unit containing packages. Include official registration marks and numbers assigned to the unit.
 - 6 An estimate of the quantity and likely condition of the goods.

3.1.3 Particulars not immediately available should be inserted in a supplementary message or messages.

REVISION NO:		FILE CODE	PAGE	OF
REVISION DATE:	1 st Dec. 2008	Aban – Pearl - 001	88	96

	ABAN PEARL – SOPEP - 001	SECTION:	08
		SUBSECTION:	na
ANNEX			


1.11.3.2 Harmful substances reports (HS)

3.2.1 In the case of actual discharge, primary HS reports should contain items A, B, C (or D), E, F, L, M, N, Q, R, S, T, U, X of the standard reporting format. In the case of probable discharge (see 3.4), item P should also be included. Details for P, Q, R, T and X should be as follows:

- P**
- 1 Type of oil or the correct technical name of the noxious liquid substances on board.
 - 2 UN number or numbers.
 - 3 Pollution category (A, B, C or D), for noxious liquid substances.
 - 4 Names of manufacturers of substances, if appropriate, when known, or consignee or consignor.
 - 5 Quantity.
- Q**
- 1 Condition of the ship as relevant.
 - 2 Ability to transfer cargo/ballast/fuel.
- R**
- 1 Type of oil or the correct technical name of the noxious liquid discharged into the sea.
 - 2 UN number or numbers.
 - 3 Pollution category (A, B, C or D), for noxious liquid substances.
 - 4 Names of manufacturers of substances, if appropriate, when known, or consignee or consignor.
 - 5 An estimate of the quantity of the substances.
 - 6 Whether lost substances floated or sank.
 - 7 Whether loss is continuing.
 - 8 Cause of loss.
 - 9 Estimate of the movement of the discharge or lost substances, giving current conditions if known.
 - 10 Estimate of the surface area of the spill if possible.
- T**
- 1 Name, address, telex and telephone number of the ship's owner and representative (charterer, manager or operator of the ship or their agent).
- X**
- 1 Action being taken with regard to the discharge and the movement of the ship.
 - 2 Assistance or salvage efforts which have been requested or which have been provided by others.
 - 3 The master of an assisting or salvaging ship should report the particulars of the action undertaken or planned.

3.2.2 After the transmission of the information referred to above in the initial report, as much as possible of the information essential for the protection of the marine environment as is appropriate to the incident should be reported in a supplementary report as soon as possible. That information should include items P, Q, R, S and X.

REVISION NO:		FILE CODE	PAGE	OF
REVISION DATE:	1 st Dec. 2008	Aban – Pearl - 001	89	96

	ABAN PEARL – SOPEP - 001	SECTION:	08
		SUBSECTION:	na
ANNEX			


3.2.3 The master of any ship engaged in or requested to engage in an operation to render assistance or undertake salvage should report, as far as practicable, items A, B, C (or D), E, F, L, M, N, P, Q, R, S, T, U, X of the standard reporting format. The master should also keep the coastal State informed of developments.

1.11.3.3 Marine pollutants reports (MP)

3.3.1 In the case of actual discharge, primary MP reports should contain items A, B, C (or D), M, Q, R, S, T, U, X of the standard reporting format. In the case of probable discharge (see 3.4), item P should also be included. Details for P, Q, R, T and X should be as follows:

- P
- 1 Correct technical name or names of goods.
 - 2 UN number or numbers.
 - 3 IMO hazard class or classes.
 - 4 Names of manufacturers of goods when known, or consignee or consignor.

REVISION NO:		FILE CODE	PAGE	OF
REVISION DATE:	1 st Dec. 2008	Aban – Pearl - 001	90	96

	ABAN PEARL – SOPEP - 001	SECTION:	08
		SUBSECTION:	na
ANNEX			

5 Types of packages, including identification marks. Specify whether portable tank or tank vehicle, or whether vehicle or freight container or other cargo transport unit containing packages. Include official registration marks and numbers assigned to the unit.

6 An estimate of the quantity and likely condition of the goods.

Q 1 Condition of the ship as relevant.
2 Ability to transfer cargo/ballast/fuel.

R 1 Correct technical name or names of goods.
2 UN number or numbers.
3 IMO hazard class or classes.
4 Names of manufacturers of goods when known, or consignee or consignor.
5 Types of packages, including identification marks. Specify whether portable tank or tank vehicle, or whether vehicle or freight container or other cargo transport unit containing packages. Include official registration marks and numbers assigned to the unit.
6 An estimate of the quantity and likely condition of the goods.
7 Whether lost goods floated or sank.
8 Whether loss is continuing.
9 Cause of loss

T 1 Name, address, telex and telephone number of the ship's owner and representative (charterer, manager or operator of the ship or their agent).

X 1 Action being taken with regard to the discharge and the movement of the ship.
2 Assistance or salvage efforts which have been requested or which have been provided by others.
3 The master of an assisting or salvaging ship should report the particulars of the action undertaken or planned.


3.3.2 After the transmission of the information referred to above in the initial report, as much as possible of the information essential for the protection of the marine environment as is appropriate to the incident should be reported. That information should include items P, Q, R, S and X.

3.3.3 The master of any ship engaged in or requested to engage in an operation to render assistance or undertake salvage should report, as far as practicable, items A, B, C (or D), M, P, Q, R, S, T, U, X of the standard reporting format. The master should also keep the coastal State informed of developments.

1.11.3.4 Probability of discharge

3.4.1 The probability of a discharge resulting from damage to the ship or its equipment is a reason for making a report. In judging whether there is such a probability and

REVISION NO:		FILE CODE	PAGE	OF
REVISION DATE:	1 st Dec. 2008	Aban – Pearl - 001	91	96

	ABAN PEARL – SOPEP - 001	SECTION:	08
		SUBSECTION:	na
ANNEX			


whether the report should be made, the following factors, among others, should be taken into account:

- .1 The nature of the damage, failure or breakdown of the ship, machinery or equipment; and
- .2 Sea and wind state and also traffic density in the area at the time and place of the incident.

3.4.2 It is recognised that it would be impracticable to lay down precise definitions of all types of incidents involving probable discharge which would warrant an obligation to report. Nevertheless, as a general guideline, the master of the ship should make reports in cases of:

- .1 Damage, failure or breakdown which affects the safety of ships; examples of such incidents are collision, grounding, fire, explosion, structural failure, flooding, cargo shifting; and
- .2 Failure or breakdown of machinery or equipment which results in impairment of the safety of navigation; examples of such incidents are failure or breakdown of steering gear, propulsion plant, electrical generating system, essential ship borne navigational aids.


REVISION NO:		FILE CODE	PAGE	OF
REVISION DATE:	1 st Dec. 2008	Aban – Pearl - 001	92	96

	ABAN PEARL – SOPEP - 001	SECTION:	09
		SUBSECTION:	na
DOCUMENT ADMINISTRATION			

CONTENTS

9.1 taBLE OF REVISIONS 2
9.2 CONTROL PAGE 3

REVISION NO:	0.0	FILE CODE	PAGE	OF
REVISION DATE:	1 st Dec. 2008	Aban – Pearl – 001	93	96


	ABAN PEARL – SOPEP - 001	SECTION:	09
		SUBSECTION:	na
DOCUMENT ADMINISTRATION			

9.1 Table of Revisions

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REVISION NO:	0.0	FILE CODE	PAGE	OF
REVISION DATE:	1 st Dec. 2008	Aban – Pearl – 001	94	96

	ABAN PEARL – SOPEP - 001	SECTION:	09
		SUBSECTION:	na
DOCUMENT ADMINISTRATION			

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QHSE Manager

Approved by: _____ Ian Laidlaw
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REVISION NO:	0.0	FILE CODE	PAGE	OF
REVISION DATE:	1 st Dec. 2008	Aban – Pearl – 001	95	96

	ABAN PEARL – SOPEP - 001	SECTION:	09
		SUBSECTION:	na
DOCUMENT ADMINISTRATION			

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REVISION NO:	0.0	FILE CODE	PAGE	OF
REVISION DATE:	1 st Dec. 2008	Aban – Pearl – 001	96	96